FILE COVERS 1907 - 13 Dec 2010 VOL 153 ISS 25
FILE LAST UPDATED: 12 Dec 2010 (20101212/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2010

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the fourth quarter of 2010.

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=> d que l19
L5           10 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  MYCOPLASMA CYNOS+PFT,N
                T/CT OR (M OR M. OR MYCOPLAS?)(2A)CYNOS
L6            3 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L5 AND (INACTIV? OR
                ATTENUAT? OR ?VACCIN?)
L7           10 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L5 OR L6
L8          372 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  STREPTOCOCCUS EQUI
                ZOOEPIDEMICUS+PFT,NT/CT
L9          468 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L8 OR STREP?(3A)ZOOEPI
                D?
L10         863 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  CHLAMYDOPHILA+PFT,NT/C
                T
L11        6964 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  CHLAMYDIA+PFT,NT/CT
L12       19864 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L10 OR L11 OR
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L13           3 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  (L7 OR CYNOS) AND
                (L12 OR L9)
L14         924 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L12 AND ?VACCIN? AND
                ?IMMUN?
L15         126 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L14 AND (INACTIV? OR
                ATTENUAT?)
L18           1 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L15 AND (L7 OR
                ?CYNOS?)
L19           4 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L13 OR L18 OR L6


=> fil medline embase biosis
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=> d que l49
L49          65 SEA ?CHLAMYD?(2A)(PECORUM OR SUIS OR TRACHOMATIS OR PNEUMONIA?)
                (S)(ATTENUA? OR INACTIV?) AND ?IMMUN?(S) RESPON?


=> dup rem l19 l49
FILE 'HCAPLUS' ENTERED AT 17:53:29 ON 13 DEC 2010
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PROCESSING COMPLETED FOR L19
PROCESSING COMPLETED FOR L49
L59          41 DUP REM L19 L49 (28 DUPLICATES REMOVED)
                ANSWERS '1-4' FROM FILE HCAPLUS
                ANSWERS '5-17' FROM FILE MEDLINE
                ANSWER '18' FROM FILE BIOSIS
                ANSWERS '19-41' FROM FILE WPIX

=> d l59 ibib hit tot

L59  ANSWER 1 OF 41  HCAPLUS  COPYRIGHT 2010 ACS on STN DUPLICATE 4
ACCESSION NUMBER:         2005:29227  HCAPLUS  Full-text
DOCUMENT NUMBER:          142:133045
TITLE:                    Vaccines comprising attenuated viruses and
                          bacteria or antigen-encoding nucleic acids and
                          antibodies for treating canine infectious respiratory
                          disease
INVENTOR(S):              Brownlie, John; Chalker, Victoria Jane; Erles, Kerstin
PATENT ASSIGNEE(S):       The Royal Veterinary College, UK
SOURCE:                   PCT Int. Appl., 102 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2005002618         A1    20050113    WO 2004-GB2865          20040701
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
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SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2004253344	A1	20050113	AU 2004-253344		20040701
AU 2004253344	B2	20100429			
CA 2530797	A1	20050113	CA 2004-2530797		20040701
EP 1638599	A1	20060329	EP 2004-743211		20040701
EP 1638599	B1	20090916			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR					
BR 2004012194	A	20060822	BR 2004-12194		20040701
CN 1845754	A	20061011	CN 2004-80025001		20040701
JP 2007526884	T	20070920	JP 2006-518335		20040701
EP 2050463	A2	20090422	EP 2008-75914		20040701
EP 2050463	A3	20100120			
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, HR, LT, LV, MK					
NZ 544453	A	20090430	NZ 2004-544453		20040701
AT 442857	T	20091015	AT 2004-743211		20040701
NO 2005006207	A	20060131	NO 2005-6207		20051227
IN 2005DN06133	A	20071221	IN 2005-DN6133		20051229
KR 2006106809	A	20061012	KR 2006-7000080		20060102
MX 2006000278	A	20060407	MX 2006-278		20060105
ZA 2006000918	A	20070725	ZA 2006-918		20060131
US 20070098739	A1	20070503	US 2006-563199		20060901
US 20080220018	A1	20080911	US 2007-849931		20070904
PRIORITY APPLN. INFO.:			GB 2003-15323	A	20030701
			EP 2004-743211	A3	20040701
			WO 2004-GB2865	W	20040701
			US 2006-563199	A3	20060901

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease

AB A vaccine composition for vaccinating dogs comprising any one or more of (a) an agent capable of raising an immune response against Streptococcus equi sub species zooepidemicus in a dog, (b) an agent capable of raising an immune response against Mycoplasma cynos in a dog, and (c) an agent capable of raising an immune response against a Chlamydophila in a dog.

ST canine infectious respiratory disease vaccine antibody Streptococcus Mycoplasma Chlamydophila

IT rRNA
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(23 S; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Glycoproteins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(HE (hemagglutinin-esterase); vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Immunostimulants
(adjuvants; vaccines comprising attenuated viruses

and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Saliva
(anal.; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Infection
(bacterial; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Samples
(biol.; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Drug delivery systems
(carriers; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Adsorbents
(immunoadsorbents; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Diagnosis
(immunodiagnosis; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Immunoassay
(immunosorbent; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Respiratory system, disease
(infection, canine; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Bronchi
(lavage; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Diagnosis
(serodiagnosis; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Proteins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(spike; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Body fluid
(tracheal wash or bronchiolar lavage; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic

acids and antibodies for treating canine infectious respiratory disease)

IT Canine adenovirus
(type 2; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Adoptive immunotherapy
Blood serum
Bordetella bronchiseptica
Canid herpesvirus 1
Canidae
Canine parainfluenza virus
Canine respiratory coronavirus
Canis familiaris
Chlamydia muridarum
Chlamydia pecorum
Chlamydia pneumoniae
Chlamydia suis
Chlamydia trachomatis
Chlamydophila
Chlamydophila abortus
Chlamydophila felis
Chlamydophila psittaci
DNA sequences
Drug delivery systems
Labels
Mycoplasma cynos
Streptococcus
Streptococcus equi zooepidemicus
Vaccines
Veterinary medicine
(vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Nucleic acids
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Antibodies and Immunoglobulins
Gene, animal
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Infection
(viral; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Trachea (anatomical)

(wash; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT 827073-23-4P, DNA (chlamydophila 23 S rRNA gene) 827073-24-5P 827073-25-6P 827073-26-7P 827073-27-8P 827073-28-9P 827073-29-0P 827073-30-3P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT 827073-86-9 827073-87-0
RL: PRP (Properties)
(unclaimed sequence; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

L59 ANSWER 2 OF 41 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2009:316615 HCAPLUS Full-text
DOCUMENT NUMBER: 151:418689
TITLE: Strain typing of Mycoplasma cynos isolates from dogs with respiratory disease
AUTHOR(S): Mannering, Sally A.; McAuliffe, Laura; Lawes, Joanna R.; Erles, Kerstin; Brownlie, Joe
CORPORATE SOURCE: The Royal Veterinary College, Hatfield, AL9 7TA, UK
SOURCE: Veterinary Microbiology (2009), 135(3-4), 292-296
CODEN: VMICDQ; ISSN: 0378-1135
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Strain typing of Mycoplasma cynos isolates from dogs with respiratory disease

AB The association of Mycoplasma cynos with canine infectious respiratory disease is increasingly being recognized. This study describes the strain typing of 14 M. cynos isolates cultured from trachea and bronchoalveolar lavage samples of six dogs with respiratory disease, from two sep. kennels in the United Kingdom. The genetic similarity of the isolates was investigated using pulsed-field gel electrophoresis (PFGE) and random amplified polymorphic DNA (RAPD). Most of the isolates from four dogs housed at a re-homing kennel were genetically similar and some isolates from different dogs were indistinguishable by both PFGE and RAPD. These isolates were cultured from dogs with non-overlapping stays in the kennel, which may indicate maintenance of some strains within kennels. A small number of isolates showed much greater genetic heterogeneity and were genetically distinct from the main group of M. cynos strains. There was also a high degree of similarity of the M. cynos type strain (isolated from a dog with respiratory disease in Denmark in 1971) to at least one of the United Kingdom isolates using PFGE anal., which may suggest possible conservation of pathogenic strains of M. cynos.

IT Body fluid
(bronchoalveolar lavage; mol. typing of Mycoplasma cynos isolates from dog with respiratory disease)

IT Respiratory system disease
(infection; mol. typing of Mycoplasma cynos isolates from dog with respiratory disease)

IT Bordetella bronchiseptica
Canid herpesvirus 1
Canine respiratory coronavirus

Canis familiaris
DNA sequences
Dog
Enterococcus
Escherichia coli
Mycoplasma canis
Mycoplasma cynos
Mycoplasma spumans
Pasteurella
RAPD analysis
Streptococcus equi zooepidemicus
Trachea
Ureaplasma
(mol. typing of *Mycoplasma cynos* isolates from dog with respiratory disease)

IT Infection
(respiratory tract; mol. typing of *Mycoplasma cynos* isolates from dog with respiratory disease)

IT Bronchitis
(tracheobronchitis; mol. typing of *Mycoplasma cynos* isolates from dog with respiratory disease)

L59 ANSWER 3 OF 41 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2008:587539 HCAPLUS Full-text
DOCUMENT NUMBER: 148:536015
TITLE: OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease
INVENTOR(S): Callister, Steven M.; Lafleur, Rhonda; Wasmoen, Terri L.
PATENT ASSIGNEE(S): Schering-Plough Ltd., Switz.
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008057396	A2	20080515	WO 2007-US23101	20071101
WO 2008057396	A3	20081016		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
AU 2007318026	A1	20080515	AU 2007-318026	20071101
CA 2668405	A1	20080515	CA 2007-2668405	20071101
US 20080181916	A1	20080731	US 2007-933583	20071101
KR 2009077018	A	20090713	KR 2009-7011395	20071101
EP 2077856	A2	20090715	EP 2007-861633	20071101

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS

JP 2010509217	T	20100325	JP 2009-535321		20071101
IN 2009CN02457	A	20100319	IN 2009-CN2457		20090430
MX 2009004866	A	20090519	MX 2009-4866		20090506
ZA 2009003378	A	20100331	ZA 2009-3378		20090515
CN 101573135	A	20091104	CN 2007-80048874		20090629
PRIORITY APPLN. INFO.:			US 2006-864258P	P	20061103
			WO 2007-US23101	W	20071101

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

TI OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease

AB The present invention provides a vaccine for canine Lyme disease and methods of making and using the vaccine alone, or in combinations with other protective agents. The vaccine comprises OspC-expressing Borrelia killed in the presence of OspC-specific antibody elicited in an animal injected with Borrelia burgdorferi ss50772. The vaccines may also comprise an OspA- or OspB-expressing second strain of Borrelia genospecies and/or non-Borrelia pathogen.

ST OspC antibody killed Borrelia adjuvant immunostimulant pathogen antigen vaccine; canine Lyme disease vaccine Borrelia burgdorferi OspA OspB OspC

IT Borrelia garinii
(ATCC Number 51383 or 51991; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia afzelii
(ATCC Number 51567; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Animalia
Animals
Bordetella bronchiseptica
Borrelia
Borrelia burgdorferi
Canidae
Canine adenovirus
Canine coronavirus
Canine distemper virus
Canine parainfluenza virus
Canine parvovirus
Drug delivery systems
Ehrlichia canis
Immune adjuvants
Immunostimulants
Influenza A virus
Leptospira
Lyme disease
Mycoplasma
Mycoplasma cynos
Pathogen
Pharmaceutical carriers
Pharmaceutical injections
Protein sequences
Rabies virus
Vaccines
(OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Antibodies and Immunoglobulins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(OspC-specific; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Anaplasma
(organism; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Leishmania
(organisms; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Proteins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ospA (outer surface protein A); OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Proteins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ospB (outer surface protein B); OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Proteins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ospC (outer surface protein C); OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Drugs
(protective agent; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Leptospira interrogans
(serovar canicola; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Leptospira kirschneri
(serovar grippotyphosa; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Leptospira interrogans
(serovar icterohaemorrhagiae; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Leptospira interrogans

(serovar pomona; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss 20006; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss 212; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss 50772 (ATCC Number PTA-439); OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss 61BV3; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss B-31 (ATCC Number 35210); OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss DK7; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss ESP1; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss HII; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss IP1,IP2,IP3; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss Mil; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss Ne-56; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss P1F; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss S-1-10 (ATCC Number PTA-1680); OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

IT Borrelia burgdorferi
(ss Z136; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen

as vaccine against canine Lyme disease)
IT Borrelia burgdorferi
(ss ZS7; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)
IT Borrelia burgdorferi
(ss ia; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)
IT Borrelia burgdorferi
(ssPka; OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)
IT 199437-26-8
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(OspC-specific borreliacidal antibody-killed OspC-expressing Borrelia, immune adjuvant, immunostimulant and other pathogen antigen as vaccine against canine Lyme disease)

L59 ANSWER 4 OF 41 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1991:542224 HCAPLUS Full-text
DOCUMENT NUMBER: 115:142224
ORIGINAL REFERENCE NO.: 115:24267a,24270a
TITLE: Complexes having adjuvant activity in vaccine preparation
INVENTOR(S): Mackenzie, Neill Moray; O'Sullivan, Angela Marie
PATENT ASSIGNEE(S): Cooper's Animal Health Ltd., UK
SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 415794	A1	19910306	EP 1990-309570	19900831
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4981684	A	19910101	US 1989-426050	19891024
CA 2064911	A1	19910302	CA 1990-2064911	19900831
WO 9103256	A1	19910321	WO 1990-GB1351	19900831
W: AU, CA, HU, JP, SU				
AU 9063355	A	19910408	AU 1990-63355	19900831
AU 637405	B2	19930527		
DD 297331	A5	19920109	DD 1990-343761	19900831
ZA 9006977	A	19920527	ZA 1990-6977	19900831
HU 61205	A2	19921228	HU 1992-666	19900831
JP 05500056	T	19930114	JP 1990-512423	19900831
PL 168055	B1	19951230	PL 1990-286711	19900831
PL 168316	B1	19960229	PL 1990-308524	19900831
EP 766967	A1	19970409	EP 1996-202059	19900831
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 5178860	A	19930112	US 1990-611543	19901207
LV 10394	B	19951020	LV 1993-753	19930629

PRIORITY APPLN. INFO.:	GB 1989-19819	A	19890901
	US 1989-426050	A3	19891024
	EP 1990-309570	A3	19900831
	WO 1990-GB1351	A	19900831

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)

TI Complexes having adjuvant activity in vaccine preparation

AB "Empty" iscom (immuno-stimulating complexes) matrixes, ie. formed without an antigen, have been found to provide an adjuvant formation for a sep. antigen in a vaccine formulation, the antigen being associated with a bacterium or mycoplasma. These and conventional iscoms can be formed without removing the solubilizing agent used for the antigen. In each case, the iscom can be 3-dimensional or, if formed without phospholipid, 2-dimensional. The glycoside is preferably Quil A and the sterol is preferably cholesterol.

ST immunostimulant complex adjuvant vaccine

IT Phospholipids, biological studies
RL: PREP (Preparation)
(immunostimulant complex containing solubilizing agents and, in vaccine preparation)

IT Phosphatidylcholines, biological studies
RL: PREP (Preparation)
(immunostimulant complexes containing, in vaccine preparation)

IT Vaccines
(preparation of, microbial antigen and glycoside complex with sterol in)

IT Actinobacillus
Bordetella
Bordetella pertussis
Campylobacter
Chlamydia
Clostridium
Escherichia
Haemophilus
Legionella
Listeria
Mycobacterium
Mycoplasma agalactiae
Mycoplasma agalactiae bovis
Mycoplasma arthritidis
Mycoplasma capricolum
Mycoplasma cynos
Mycoplasma dispar
Mycoplasma fermentans
Mycoplasma gallisepticum
Mycoplasma hominis
Mycoplasma hyopneumoniae
Mycoplasma hyorhinis
Mycoplasma mycoides
Mycoplasma orale
Mycoplasma ovipneumoniae
Mycoplasma pneumoniae
Mycoplasma pulmonis
Mycoplasma salivarium
Mycoplasma synoviae
Neisseria meningitidis
Pasteurella
Pseudomonas
Rickettsia
Salmonella
Spirochaeta
Staphylococcus
Streptococcus
Vibrio
(vaccine preparation with immunostimulants and antigen of)

IT 57-13-6, Urea, biological studies 113-00-8, Guanidine 302-95-4, Sodium desoxycholate 41444-50-2 51651-58-2 85261-19-4 85261-20-7
RL: BIOL (Biological study)
(as solubilizing agent, immunostimulant complex containing in vaccine preparation)
IT 57-88-5, Cholesterol, biological studies 66594-14-7, Quil-A
RL: BIOL (Biological study)
(immunostimulant complex containing, in vaccine preparation)

L59 ANSWER 5 OF 41 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2010104306 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 20004265
TITLE: Immunization with the attenuated plasmidless Chlamydia trachomatis L2(25667R) strain provides partial protection in a murine model of female genitourinary tract infection.
AUTHOR: Olivares-Zavaleta Norma; Whitmire William; Gardner Donald; Caldwell Harlan D
CORPORATE SOURCE: Laboratory of Intracellular Parasites, Rocky Mountain Laboratories, NIAID, NIH, 903 S 4th Street, Hamilton, MT 59840, USA.
SOURCE: Vaccine, (2010 Feb 10) Vol. 28, No. 6, pp. 1454-62. Electronic Publication: 2009-12-08.
Journal code: 8406899. E-ISSN: 1873-2518. L-ISSN: 0264-410X.
Report No.: NLM-NIHMS167033 [Available on 02/10/11]; NLM-PMC2821993 [Available on 02/10/11].
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, N.I.H., INTRAMURAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 201004
ENTRY DATE: Entered STN: 16 Feb 2010
Last Updated on STN: 22 Apr 2010
Entered Medline: 21 Apr 2010
TI Immunization with the attenuated plasmidless Chlamydia trachomatis L2(25667R) strain provides partial protection in a murine model of female genitourinary tract infection.
AB Here we report on the safety, immunogenicity, and vaccine efficacy of the naturally occurring plasmid-free attenuated Chlamydia trachomatis L2-25667R (L2R) strain in a murine infection model. Intravaginal immunization induced both chlamydial specific serum antibody and systemic CD4(+) Th1 biased immune responses but failed to induce local IgA antibodies. Immunization induced no pathological changes in the urogenital tract. Protective immunity was evaluated by vaginal challenge with a natural occurring non-attenuated plasmid positive C. trachomatis urogenital strain (serovar D). Vaccinated mice were not protected from colonization/infection but exhibited a reduction in infectious burden at early time periods (1-2 weeks) post-challenge. Partial protective immunity did not protect against inflammatory disease. Thus, intravaginal vaccination with the live-attenuated L2R stain is safe, induces a systemic antibody and CD4(+) Th1 biased immune response, but its protective efficacy is limited to reducing chlamydial burden at early time periods post-infection.
Published by Elsevier Ltd.

L59 ANSWER 6 OF 41 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2008297344 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 18359891
TITLE: Surfactant protein D is expressed and modulates

inflammatory responses in human coronary artery smooth muscle cells.
AUTHOR: Snyder Gary D; Oberley-Deegan Rebecca E; Goss Kelli L; Romig-Martin Sara A; Stoll Lynn L; Snyder Jeanne M; Weintraub Neal L
CORPORATE SOURCE: Department of Internal Medicine, University of Iowa Carver College of Medicine, Iowa City, IA, USA.
CONTRACT NUMBER: 2T32 HL 07638-16 (United States NHLBI NIH HHS)
DK 25295 (United States NIDDK NIH HHS)
HL 070860 (United States NHLBI NIH HHS)
HL 076684 (United States NHLBI NIH HHS)
HL 50050 (United States NHLBI NIH HHS)
HL 62984 (United States NHLBI NIH HHS)
SOURCE: American journal of physiology. Heart and circulatory physiology, (2008 May) Vol. 294, No. 5, pp. H2053-9. Electronic Publication: 2008-03-21.
Journal code: 100901228. ISSN: 0363-6135. L-ISSN: 0363-6135.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200806
ENTRY DATE: Entered STN: 8 May 2008
Last Updated on STN: 13 Jun 2008
Entered Medline: 12 Jun 2008

AB Surfactant protein D (SP-D) is a constituent of the innate immune system that plays a role in the host defense against lung pathogens and in modulating inflammatory responses. While SP-D has been detected in extrapulmonary tissues, little is known about its expression and function in the vasculature. Immunostaining of human coronary artery tissue sections demonstrated immunoreactive SP-D protein in smooth muscle cells (SMCs) and endothelial cells. SP-D was also detected in isolated human coronary artery SMCs (HCASMCs) by PCR and immunoblot analysis. Treatment of HCASMCs with endotoxin (LPS) stimulated the release of IL-8, a proinflammatory cytokine. This release was inhibited >70% by recombinant SP-D. Overexpression of SP-D by adenoviral-mediated gene transfer in HCASMCs inhibited both LPS- and TNF-alpha-induced IL-8 release. Overexpression of SP-D also enhanced uptake of Chlamydia pneumoniae elementary bodies into HCASMCs while attenuating IL-8 production induced by bacterial exposure. Both LPS and TNF-alpha increased SP-D mRNA levels by five- to eightfold in HCASMCs, suggesting that inflammatory mediators upregulate the expression of SP-D. In conclusion, SP-D is expressed in human coronary arteries and functions as an anti-inflammatory protein in HCASMCs. SP-D may also participate in the host defense against pathogens that invade the vascular wall.

L59 ANSWER 7 OF 41 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2008427232 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 18595462
TITLE: Biological and immunogenic characteristics of Chlamydia trachomatis strain MT-2A (serovar D) and its use for development of experimental inactivated vaccine.
AUTHOR: Poleshchuk N N; Rubanik L V; Kapitulets N N; Kvacheva Z B; Kostiuk S A; Chernoshei D A; Kapitulets S P; Titov L P
SOURCE: Zhurnal mikrobiologii, epidemiologii, i immunobiologii, (2008 May-Jun) No. 3, pp. 39-44.
Journal code: 0415217. ISSN: 0372-9311. L-ISSN: 0372-9311.

PUB. COUNTRY: Russia (Federation)
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200808
ENTRY DATE: Entered STN: 4 Jul 2008
Last Updated on STN: 26 Aug 2008
Entered Medline: 20 Aug 2008

TI Biological and immunogenic characteristics of Chlamydia trachomatis strain MT-2A (serovar D) and its use for development of experimental inactivated vaccine.

AB Biological characteristics of C. trachomatis author's strain MT-2A (serovar D) is presented. Stages of development on its basis the experimental formalin-inactivated vaccine against Chlamydia were described. Humoral and cellular immune response to the vaccine administered on 3-dose immunization schedule in conjunction with polyoxidonium as adjuvant was studied. Significant immunological efficacy of the vaccine was shown. T- and B-cell immune responses were characterized. Titer of IgG antibodies against Chlamydia in blood serum after 3rd dose of the vaccine was 10,880+/-1,817.76. Assessment of T-cell response showed that reaction of delayed hypersensitivity with formation of granuloma presented in 60% of animals. Proportion of immunoblasts in reaction of blast-transformation was 29.3+/-2.8%. Perspectives of further studies of the developed corpuscular vaccine against Chlamydia are discussed.

L59 ANSWER 8 OF 41 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2005100621 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 15731055
TITLE: A live and inactivated Chlamydia trachomatis mouse pneumonitis strain induces the maturation of dendritic cells that are phenotypically and immunologically distinct.
AUTHOR: Rey-Ladino Jose; Koochesfahani Kasra M; Zaharik Michelle L; Shen Caixia; Brunham Robert C
CORPORATE SOURCE: University of British Columbia Centre for Disease Control, 655 West 12th Ave., Vancouver, BC V5Z 4R4, Canada.. robert.brunham@bccdc.ca
SOURCE: Infection and immunity, (2005 Mar) Vol. 73, No. 3, pp. 1568-77.
Journal code: 0246127. ISSN: 0019-9567. L-ISSN: 0019-9567.
Report No.: NLM-PMC1064943.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200504
ENTRY DATE: Entered STN: 1 Mar 2005
Last Updated on STN: 2 Apr 2005
Entered Medline: 1 Apr 2005
MEDLINE REFERENCE COUNT: 56 There are 56 cited references available in MEDLINE for this document.

TI A live and inactivated Chlamydia trachomatis mouse pneumonitis strain induces the maturation of dendritic cells that are phenotypically and immunologically distinct.

AB The intracellular bacterial pathogen Chlamydia trachomatis is a major cause of sexually transmitted disease worldwide. While protective immunity does appear to develop following natural chlamydial infection in humans, early vaccine trials using heat-killed C. trachomatis resulted in limited and transient

protection with possible enhanced disease during follow-up. Thus, immunity following natural infection with live chlamydia may differ from immune responses induced by immunization with inactivated chlamydia. To study this differing immunology, we used murine bone marrow-derived dendritic cells (DC) to examine DC maturation and immune effector function induced by live and UV-irradiated C. trachomatis elementary bodies (live EBs and UV-EB, respectively). DC exposed to live EBs acquired a mature DC morphology; expressed high levels of major histocompatibility complex (MHC) class II, CD80, CD86, CD40, and ICAM-1; produced elevated amounts of interleukin-12 and tumor necrosis factor alpha; and were efficiently recognized by Chlamydia-specific CD4+ T cells. In contrast, UV-EB-pulsed DC expressed low levels of CD40 and CD86 but displayed high levels of MHC class II, ICAM-1, and CD80; secreted low levels of proinflammatory cytokines; and exhibited reduced recognition by Chlamydia-specific CD4+ T cells. Adoptive transfer of live EB-pulsed DC was more effective than that of UV-EB-pulsed DC at protecting mice against challenge with live C. trachomatis. The expression of DC maturation markers and immune protection induced by UV-EB could be significantly enhanced by costimulation of DC ex vivo with UV-EB and oligodeoxynucleotides containing cytosine phosphate guanosine; however, the level of protection was significantly less than that achieved by using DC pulsed ex vivo with viable EBs. Thus, exposure of DC to live EBs results in a mature DC phenotype which is able to promote protective immunity, while exposure to UV-EB generates a semimature DC phenotype with less protective potential. This result may explain in part the differences in protective immunity induced by natural infection and immunization with whole inactivated organisms and is relevant to rational chlamydia vaccine design strategies.

L59 ANSWER 9 OF 41 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 2005226481 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 15780483
TITLE: Can worms defend our hearts? Chronic helminthic infections may attenuate the development of cardiovascular diseases.
AUTHOR: Magen Eli; Borkow Gadi; Bentwich Zvi; Mishal Joseph; Scharf Shimon
CORPORATE SOURCE: Ruth Ben-An Institute of Clinical Immunology & AIDS Center, Kaplan Medical Center, Hebrew University Hadassah Medical School, Rehovot, Israel.. elimgen2@netvision.net.il
SOURCE: Medical hypotheses, (2005) Vol. 64, No. 5, pp. 904-9. Journal code: 7505668. ISSN: 0306-9877. L-ISSN: 0306-9877.
PUB. COUNTRY: Scotland: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200507
ENTRY DATE: Entered STN: 3 May 2005
Last Updated on STN: 29 Jul 2005
Entered Medline: 28 Jul 2005

AB The established risk factors for atherosclerosis fail to fully explain the extent and severity of coronary artery diseases in 50% of the patients. Thus, the causative agents and processes, which may be involved in the pathogenesis of atherosclerosis, are being sought. Notoriously, atherosclerosis and cardiovascular event rates are much lower in developing countries. Clinically, severe infections by intracellular pathogens are widespread mostly in developing countries with poor sanitation, nutrition and massive worm infections. A link between atherosclerosis and helminth infections has never been examined. Based on the present knowledge of immune and infectious mechanisms related to atherosclerosis, it is proposed that chronic helminthic infections can have a significant bearing on the epidemiology of cardiovascular diseases. How can helminthic infections affect the

cardiovascular risk? (1) Helminths evade or suppress host immune responses, by producing anti-inflammatory and other immunomodulatory molecules. (2) Helminths induce chronic Th2 activation, which can modify cytokine profiles and immunological responses to heat shock proteins, Chlamydia pneumoniae and cytomegalovirus. (3) The chronic Th2 profile may modulate monocyte activation and chemotaxis to inflammatory sites (atherosclerotic plaques). (4) Chronic Th2 activation may lead to a cytokine profile that could be beneficial for attenuation of atherosclerosis development (upregulation of IL-4, IL-10 and IL-13 and downregulation of proinflammatory cytokines). (5) Helminthic infections may reduce plasma LDL level not only by affecting the host nutrition, but also via modulation of naturally occurring antibodies to cholesterol. Studies are needed to clarify these suggestions. If the hypothesis that helminthic infections impact atherosclerosis is correct, it should be taken into consideration in atherosclerosis immunomodulation therapy and especially in the design of vaccines and vaccine trials.

L59 ANSWER 10 OF 41 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2002682876 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 12444139
TITLE: GM-CSF transgene-based adjuvant allows the establishment of protective mucosal immunity following vaccination with inactivated Chlamydia trachomatis.
AUTHOR: Lu Hang; Xing Zhou; Brunham Robert C
CORPORATE SOURCE: British Columbia Center for Disease Control and Department of Medicine, University of British Columbia, Vancouver, Canada.
SOURCE: Journal of immunology (Baltimore, Md. : 1950), (2002 Dec 1) Vol. 169, No. 11, pp. 6324-31.
Journal code: 2985117R. ISSN: 0022-1767. L-ISSN: 0022-1767.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200212
ENTRY DATE: Entered STN: 22 Nov 2002
Last Updated on STN: 27 Dec 2002
Entered Medline: 24 Dec 2002

TI GM-CSF transgene-based adjuvant allows the establishment of protective mucosal immunity following vaccination with inactivated Chlamydia trachomatis.

AB Cellular and humoral immune responses induced following murine Chlamydia trachomatis infection confer almost sterile protection against homologous reinfection. On the other hand, immunization with inactivated organism induces little protective immunity in this model system. The underlying mechanism(s) that determines such divergent outcome remains unclear, but elucidating the mechanism will probably be important for chlamydial vaccine development. One of the distinct differences between the two forms of immunization is that chlamydia replication in epithelial cells causes the secretion of a variety of proinflammatory cytokines and chemokines, such as GM-CSF, that may mobilize and mature dendritic cells and thereby enhance the induction of protective immunity. Using a murine model of C. trachomatis mouse pneumonitis lung infection and intrapulmonary adenoviral GM-CSF transfection, we demonstrate that the expression of GM-CSF in the airway compartment significantly enhanced systemic Th1 cellular and local IgA immune responses following immunization with inactivated organisms. Importantly, immunized mice had significantly reduced growth of chlamydia and exhibited less severe pulmonary inflammation following challenge infection. The site of GM-CSF transfection proved important, since mice immunized with inactivated

organisms after GM-CSF gene transfer by the i.p. route exhibited little protection against pulmonary challenge, although i.p. immunization generated significant levels of systemic Th1 immune responses. The obvious difference between i.p. and intrapulmonary immunization was the absence of lung IgA responses following i.p. vaccination. In aggregate, the findings demonstrate that the local cytokine environment is critical to the induction of protective immunity following chlamydial vaccination and that GM-CSF may be a useful adjuvant for a chlamydial vaccine.

L59 ANSWER 11 OF 41 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 2003031119 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 12537725
TITLE: Vaccine candidates in STD.
AUTHOR: Fletcher Mark A
CORPORATE SOURCE: Medical Affairs Department, Aventis Pasteur, 2, avenue Pont Pasteur, F-69367 Lyon Cedex 07, France.. FletchM@wyeth.com
SOURCE: International journal of STD & AIDS, (2002 Dec) Vol. 13 Suppl 2, pp. 38-41.
Journal code: 9007917. ISSN: 0956-4624. L-ISSN: 0956-4624.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; AIDS
ENTRY MONTH: 200303
ENTRY DATE: Entered STN: 23 Jan 2003
Last Updated on STN: 25 Mar 2003
Entered Medline: 24 Mar 2003

AB Sexually transmitted diseases (STDs) are caused by organisms that infect the mucosal surfaces of the genitourinary tract. In spite of its public health importance, current STD vaccine research lags behind work against pathogens that target another mucosal region, the respiratory tract. In the latter case, live-attenuated viral vaccines, killed whole-cell bacterial vaccines, subunit/protein bacterial vaccines, and bacterial polysaccharide vaccines have been enormously successful. To move STD vaccine research forward, complex issues must be resolved. Those include selection of an appropriate antigen (e.g. scientific feasibility and intellectual property rights), the manufacture of the vaccine (e.g. delivery systems, formulation processes, and production steps), and the appropriate public health approach (e.g. medical indications and marketing aspects). Particular scientific problems have delayed STD vaccine development, like incomplete attenuation (human herpes simplex virus type 2), accentuated immunopathology (Chlamydia trachomatis), poor immunogenicity (Treponema pallidum), and broad antigenic heterogeneity (Neisseria gonorrhoeae). Nevertheless, efforts continue with the use of protein antigens: for example, the haemolysin toxoid of Haemophilus ducreyi; the major outer membrane protein(s) of N. gonorrhoeae and C. trachomatis; the glycoprotein D of human herpes simplex virus type 2; and the proteins E6 and E7 of human papilloma virus. It may be predicted that eventual STD vaccines (administered either for prophylaxis or for therapy) will use approaches that include (1) live-attenuated viruses, (2) subunit proteins or inactivated whole organisms given with mucosal adjuvants or with cellular immune response adjuvants, and (3) DNA plasmids expressing the vaccine antigen.

L59 ANSWER 12 OF 41 MEDLINE on STN DUPLICATE 9
ACCESSION NUMBER: 2001327825 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 11394975
TITLE: Vaccine candidates in STD.
AUTHOR: Fletcher M A
CORPORATE SOURCE: Medical Affairs Department, Aventis Pasteur, 2 Avenue Pont

Pasteur, F-69367 Lyon Cedex 07, France.
SOURCE: International journal of STD & AIDS, (2001 Jul) Vol. 12, No. 7, pp. 419-22. Ref: 12
Journal code: 9007917. ISSN: 0956-4624. L-ISSN: 0956-4624.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals; AIDS
ENTRY MONTH: 200108
ENTRY DATE: Entered STN: 3 Sep 2001
Last Updated on STN: 3 Sep 2001
Entered Medline: 30 Aug 2001
REFERENCE COUNT: 12 There are 12 cited references for this document.

AB Sexually transmitted diseases (STDs) are caused by organisms that infect the mucosal surfaces of the genitourinary tract. In spite of its public health importance, particular scientific problems have delayed the development of an STD vaccine, such as incomplete attenuation (human herpes simplex virus type 2), accentuated immunopathology (Chlamydia trachomatis), poor immunogenicity (Treponema pallidum), and broad antigenic heterogeneity (Neisseria gonorrhoeae). Nevertheless, efforts continue with the use of protein antigens: for example, the haemolysin toxoid of Haemophilus ducreyi; the major outer membrane protein(s) of N. gonorrhoeae and C. trachomatis; the glycoprotein D of human herpes simplex virus type 2; and the proteins E6 and E7 of the human papillomavirus. It could be predicted that eventual STD vaccines (administered either for prophylaxis or for therapy) will use approaches that will include (1) live-attenuated viruses, (2) subunit proteins or inactivated whole organisms given with mucosal adjuvants or with cellular immune response adjuvants, or (3) DNA plasmids expressing the vaccine antigen.

L59 ANSWER 13 OF 41 MEDLINE on STN DUPLICATE 10
ACCESSION NUMBER: 1999364773 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 10438062
TITLE: Intranasal immunization with Chlamydia trachomatis, serovar E, protects from a subsequent vaginal challenge with the homologous serovar.
AUTHOR: Peterson E M; You J Z; Motin V; de la Maza L M
CORPORATE SOURCE: Department of Pathology, University of California, Irvine 92697-4800, USA.. epeterso@uci.edu
CONTRACT NUMBER: AI-30499 (United States NIAID NIH HHS)
AI-32248 (United States NIAID NIH HHS)
SOURCE: Vaccine, (1999 Jul 16) Vol. 17, No. 22, pp. 2901-7.
Journal code: 8406899. ISSN: 0264-410X. L-ISSN: 0264-410X.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199911
ENTRY DATE: Entered STN: 11 Jan 2000
Last Updated on STN: 11 Jan 2000
Entered Medline: 22 Nov 1999

AB To vaccinate against a vaginal challenge with Chlamydia trachomatis, C3H/HeJ (H-2k) mice were immunized intranasally (i.n.) or intraperitoneally (i.p.) with 1 x 10(6) inclusion forming units (IFU) of C. trachomatis, serovar E and i.n. with 1 x 10(6) UV inactivated IFU of serovar E. Animals inoculated i.n. with mock infected HeLa 229 cells were used as controls. Upon a vaginal challenge with 5 x 10(3) IFU of serovar E, mice immunized i.n. with viable serovar E exhibited significant protection as judged by the number of mice

infected compared to controls ($p < 0.05$). In contrast, mice immunized i.n. with serovar E that had been UV-inactivated, were not protected from a subsequent vaginal challenge with serovar E. Mice immunized i.p. with serovar E showed attenuation of the infection by 4 weeks after challenge compared to control mice as to the number of animals with positive vaginal cultures ($p < 0.05$). Of the immune parameters examined, the best correlation with protection was seen with Chlamydia specific IgG and IgA vaginal titers and lymphoproliferative responses to serovar E. In summary, mucosal immunization with viable serovar E partially protected mice against a subsequent vaginal challenge, thereby showing that it is possible to elicit a protective response to a human strain of C. trachomatis at a distant mucosal site in this animal model.

L59 ANSWER 14 OF 41 MEDLINE on STN DUPLICATE 11
ACCESSION NUMBER: 1999184977 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 10084993
TITLE: Immunity to Chlamydia trachomatis mouse pneumonitis induced by vaccination with live organisms correlates with early granulocyte-macrophage colony-stimulating factor and interleukin-12 production and with dendritic cell-like maturation.
AUTHOR: Zhang D; Yang X; Lu H; Zhong G; Brunham R C
CORPORATE SOURCE: Department of Medical Microbiology, University of Manitoba, Winnipeg, Canada.
SOURCE: Infection and immunity, (1999 Apr) Vol. 67, No. 4, pp. 1606-13.
Journal code: 0246127. ISSN: 0019-9567. L-ISSN: 0019-9567.
Report No.: NLM-PMC96503.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199904
ENTRY DATE: Entered STN: 11 May 1999
Last Updated on STN: 11 May 1999
Entered Medline: 26 Apr 1999
MEDLINE REFERENCE COUNT: 39 There are 39 cited references available in MEDLINE for this document.

AB As is true for other intracellular pathogens, immunization with live Chlamydia trachomatis generally induces stronger protective immunity than does immunization with inactivated organism. To investigate the basis for such a difference, we studied immune responses in BALB/c mice immunized with viable or UV-killed C. trachomatis mouse pneumonitis (MoPn). Strong, acquired resistance to C. trachomatis infection was elicited by immunization with viable but not dead organisms. Immunization with viable organisms induced high levels of antigen-specific delayed-type hypersensitivity (DTH), gamma interferon production, and immunoglobulin A (IgA) responses. Immunization with inactivated MoPn mainly induced interleukin-10 (IL-10) production and IgG1 antibody without IgA or DTH responses. Analysis of local early cytokine and cellular events at days 3, 5, and 7 after peritoneal cavity immunization showed that high levels of granulocyte-macrophage colony-stimulating factor and IL-12 were detected with viable but not inactivated organisms. Furthermore, enrichment of a dendritic cell (DC)-like population was detected in the peritoneal cavity only among mice immunized with viable organisms. The results suggest that early differences in inducing proinflammatory cytokines and activation and differentiation of DCs may be the key mechanism underlying the difference between viable and inactivated organisms in inducing active immunity to C. trachomatis infection.

L59 ANSWER 15 OF 41 MEDLINE on STN DUPLICATE 12
ACCESSION NUMBER: 2000016528 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 10547436
TITLE: Immunogenic and protective ability of the two developmental forms of Chlamydiae in a mouse model of infertility.
AUTHOR: Pal S; Rangel J; Peterson E M; de la Maza L M
CORPORATE SOURCE: Department of Pathology, Medical Sciences I, Room D440, University of California, Irvine, 92697-4800, USA.. spal@uci.edu
CONTRACT NUMBER: AI-30499 (United States NIAID NIH HHS)
AI-32248 (United States NIAID NIH HHS)
SOURCE: Vaccine, (1999 Nov 12) Vol. 18, No. 7-8, pp. 752-61.
Journal code: 8406899. ISSN: 0264-410X. L-ISSN: 0264-410X.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200001
ENTRY DATE: Entered STN: 9 Feb 2000
Last Updated on STN: 9 Feb 2000
Entered Medline: 28 Jan 2000

AB To compare the ability of elementary bodies (EB) and reticulate bodies (RB) of the Chlamydia trachomatis mouse pneumonitis (MoPn) biovar to induce a protective immune response, two groups of BALB/c mice were inoculated and boosted twice, with UV-inactivated EB or RB in Freund's adjuvant. Two weeks after the last immunization mice were challenged with C. trachomatis in the ovarian bursa. Vaginal cultures collected for 6 weeks after the intrabursal challenge showed that mice inoculated with EB were significantly protected, while mice inoculated with RB were not. Six weeks after the genital challenge mice were mated. Mice immunized with EB showed significant protection as demonstrated by the number of animals which were fertile and the number of embryos present in the uterine horns. In contrast, no significant protection against infertility was observed in the mice immunized with RB.

L59 ANSWER 16 OF 41 MEDLINE on STN DUPLICATE 13
ACCESSION NUMBER: 1992065225 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 1720166
TITLE: Chlamydia trachomatis major outer membrane protein epitopes expressed as fusions with LamB in an attenuated aro A strain of Salmonella typhimurium; their application as potential immunogens.
AUTHOR: Hayes L J; Conlan J W; Everson J S; Ward M E; Clarke I N
CORPORATE SOURCE: Department of Microbiology, University of Southampton Medical School, Southampton General Hospital.
SOURCE: Journal of general microbiology, (1991 Jul) Vol. 137, No. 7, pp. 1557-64.
Journal code: 0375371. ISSN: 0022-1287. L-ISSN: 0022-1287.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-D90254; GENBANK-M33536; GENBANK-M36026; GENBANK-M36027; GENBANK-M36028; GENBANK-M36029; GENBANK-M36030; GENBANK-M36031; GENBANK-M36032; GENBANK-M55528; GENBANK-M58938

ENTRY MONTH: 199201
ENTRY DATE: Entered STN: 24 Jan 1992
Last Updated on STN: 29 Jan 1996
Entered Medline: 2 Jan 1992

TI Chlamydia trachomatis major outer membrane protein epitopes expressed as fusions with LamB in an attenuated aro A strain of Salmonella typhimurium; their application as potential immunogens.

AB The major outer-membrane protein (MOMP) of Chlamydia trachomatis is the focus of attention for chlamydial vaccine design, particularly those serovar- and subspecies-specific epitopes which provoke neutralizing immune responses. Selected surface-exposed B-cell epitopes of MOMP, incorporating B-subspecies specificities, were expressed as fusions with LamB, an inducible outer-membrane transport protein of Escherichia coli. These recombinant chlamydial-LamB proteins were correctly transported to the outer membrane of both E. coli and an aro A mutant of Salmonella typhimurium. The immunogenicity of the constructs was investigated in a mouse model of chlamydial salpingitis. After oral immunization, recombinant S. typhimurium were recovered from the livers of mice for up to two weeks, and a serum IgG response was induced both to the Salmonella and to the inserted chlamydial epitopes. By contrast, intravenous inoculation was ineffective. Although these LamB fusions proved only weakly immunogenic, this approach should be useful for investigating the ability of attenuated S. typhimurium vaccines incorporating chlamydial epitopes to stimulate protective mucosal immunity in the mouse model of chlamydial salpingitis.

L59 ANSWER 17 OF 41 MEDLINE on STN DUPLICATE 14
ACCESSION NUMBER: 1984187065 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 6715899
TITLE: Immune response of owl monkeys to topical vaccination with irradiated Chlamydia trachomatis.
AUTHOR: MacDonald A B; McComb D; Howard L
SOURCE: The Journal of infectious diseases, (1984 Mar) Vol. 149, No. 3, pp. 439-42.
Journal code: 0413675. ISSN: 0022-1899. L-ISSN: 0022-1899.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 198406
ENTRY DATE: Entered STN: 19 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 18 Jun 1984

TI Immune response of owl monkeys to topical vaccination with irradiated Chlamydia trachomatis.

AB The conjunctivae of owl monkeys were topically vaccinated with purified Chlamydia trachomatis organisms that had been inactivated by 60Co irradiation and lyophilized onto an inert carrier. Vaccinated monkeys developed antibody in serum and tears, while control animals given a placebo had no detectable titers. When challenged 35 days after the start of administration of the vaccine, all monkeys showed evidence of infection. The vaccinated group had a longer course of disease and more ocular discharge than did controls. Antibody levels in both serum and tears were nearly 10-fold higher after infection in vaccinated animals than in controls.

L59 ANSWER 18 OF 41 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 2010:287047 BIOSIS Full-text
DOCUMENT NUMBER: PREV201000287047

TITLE: Identification of immunodominant antigens of Chlamydia trachomatis using proteome microarrays.

AUTHOR(S): Molina, Douglas M.; Pal, Sukumar; Kayala, Mathew A.; Teng, Andy; Kim, Paul J.; Baldi, Pierre; Felgner, Philip L.; Liang, Xiaowu; de la Maza, Luis M. [Reprint Author]

CORPORATE SOURCE: Univ Calif Irvine, Dept Pathol, Room D440, Irvine, CA 92697 USA
lmdelama@uci.edu

SOURCE: Vaccine, (APR 9 2010) Vol. 28, No. 17, pp. 3014-3024.
CODEN: VACCDE. ISSN: 0264-410X.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 19 May 2010
Last Updated on STN: 19 May 2010

AB Chlamydia trachomatis is the most common bacterial sexually transmitted pathogen in the world. In order to control this infection there is an urgent need to formulate a vaccine. Identification of protective antigens is required to implement a subunit vaccine. To identify potential antigen vaccine candidates, three strains of mice, BALB/c, C3H/HeN and C57BL/6, were inoculated with live and inactivated C. trachomatis mouse pneumonitis (MoPn) by different routes of immunization. Using a protein microarray, serum samples collected after immunization were tested for the presence of antibodies against specific chlamydial antigens. A total of 225 open reading frames (ORF) of the C. trachomatis genome were cloned, expressed, and printed in the microarray. Using this protein microarray, a total of seven C. trachomatis dominant antigens were identified (TC0052, TC0189, TC0582, TC0660, TC0726, TC0816 and, TC0828) as recognized by IgG antibodies from all three strains of animals after immunization. In addition, the microarray was probed to determine if the antibody response exhibited a Th1 or Th2 bias. Animals immunized with live organisms mounted a predominant Th1 response against most of the chlamydial antigens while mice immunized with inactivated Chlamydia mounted a Th2-biased response. In conclusion, using a high throughput protein microarray we have identified a set of novel proteins that can be tested for their ability to protect against a chlamydial infection. (C) 2009 Elsevier Ltd. All rights reserved.

IT Major Concepts
Pharmacology; Infection; Methods and Techniques; Immune System (Chemical Coordination and Homeostasis); Reproductive System (Reproduction)

IT Parts, Structures, & Systems of Organisms
serum: blood and lymphatics; Th1 cell: immune system, blood and lymphatics; Th2 cell: immune system, blood and lymphatics

IT Diseases
chlamydial infection: bacterial disease, reproductive system disease, etiology, prevention and control
Chlamydia Infections (MeSH)

IT Chemicals & Biochemicals
IgG antibody [immunoglobulin G antibody]; open reading frame [ORF]: expression; Chlamydia trachomatis TC0052 immunodominant antigen: immunologic-drug, immunostimulant-drug; Chlamydia trachomatis TC0189 immunodominant antigen: immunologic-drug, immunostimulant-drug; Chlamydia trachomatis TC0582 immunodominant antigen: immunologic-drug, immunostimulant-drug; Chlamydia trachomatis TC0660 immunodominant antigen: immunologic-drug, immunostimulant-drug; Chlamydia trachomatis TC0726 immunodominant antigen: immunologic-drug, immunostimulant-drug; Chlamydia trachomatis TC0816 immunodominant antigen: immunologic-drug, immunostimulant-drug; Chlamydia trachomatis TC0828 immunodominant antigen: immunologic-drug, immunostimulant-drug; live Chlamydia trachomatis mouse pneumonitis: immunologic-drug, immunostimulant-drug; inactivated Chlamydia trachomatis mouse pneumonitis:

immunologic-drug, immunostimulant-drug

L59 ANSWER 19 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2010-A66383 [201011] WPIX
CROSS REFERENCE: 2009-B09659; 2010-A02004
TITLE: New modified vaccinia virus Ankara (MVA) expressing Chlamydia polypeptide, useful for inducing an immune response against Chlamydia, or for treating, preventing, or reducing the symptoms of Chlamydia infection
DERWENT CLASS: A96; B04; C06; D16
INVENTOR: JACKSON W J
PATENT ASSIGNEE: (EMER-N) EMERGENT PROD DEV GAITHERSBURG INC
COUNTRY COUNT: 124

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2010005474	A1	20100114	(201011)*	EN	104[13]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2010005474	A1	WO 2009-US3599	20090616

PRIORITY APPLN. INFO: US 2008-118388P 20081126
WO 2008-US7490 20080616

TI New modified vaccinia virus Ankara (MVA) expressing Chlamydia polypeptide, useful for inducing an immune response against Chlamydia, or for treating, preventing, or reducing the symptoms of Chlamydia infection

TT TT: NEW MODIFIED VACCINIA VIRUS EXPRESS CHLAMYDIA POLYPEPTIDE USEFUL INDUCE IMMUNE RESPOND TREAT PREVENT REDUCE SYMPTOM INFECT

DETD DETAILED DESCRIPTION - INDEPENDENT CLAIMS are: (1) an isolated MVA comprising a polynucleotide which encodes a Chlamydia polypeptide comprising an amino acid sequence at least 80% identical to SEQ ID NO: 48, where the Chlamydia polypeptide specifically binds to an antibody raised against SEQ ID NO: 48; (2) a host cell comprising the MVA above; (3) a method of producing a polypeptide by culturing the host cell of (2), and recovering the polypeptide; (4) an isolated polypeptide produced by the method of (3); (5) a composition comprising the MVA, host cell, or polypeptide above, and a pharmaceutical carrier and/or diluent; (6) a kit comprising (a) the MVA, host cell, polypeptide, or composition, and (b) a means for administering the recombinant MVA, host cell, polypeptide or composition; (7) a method of inducing an immune response against Chlamydia in a subject by administering to the subject an amount of the MVA, host cell, polypeptide, or composition, or their combination either simultaneously or in any order; (8) a method for treating, preventing, or reducing the symptoms of a Chlamydia infection or a condition associated with a Chlamydia infection in a subject by administering to the subject an amount of the MVA, host cell, polypeptide, or composition above, or their combination either simultaneously or in any order; (9) a method for attenuating or ameliorating a symptom caused by a Chlamydia infection or a condition associated with a Chlamydia infection in a subject by administering to the subject an amount of the MVA, host cell, polypeptide, or composition, or their combination either simultaneously or in any order; (10) a method of reducing the risk of HIV-related AIDS in a subject by administering the MVA, host cell, polynucleotide, polypeptide, or composition above to the subject; and (11) a method of producing a vaccine

against Chlamydia by (a) isolating the MVA, host cell, or polypeptide, or their combination, and (b) adding an adjuvant to the isolated MVA, host cell, polynucleotide, or polypeptide of (a).

USE

USE - The MVA, host cell, polypeptide, composition, and vaccine are useful for inducing an immune response against Chlamydia; for treating, preventing, or reducing the symptoms of a Chlamydia infection or a condition associated with a Chlamydia infection; for attenuating or ameliorating a symptom caused by a Chlamydia infection or a condition associated with a Chlamydia infection; and for reducing the risk of HIV-related AIDS. The Chlamydia infection is a C. trachomatis or C. pneumoniae infection. The condition associated with a Chlamydia infection is associated with a C. trachomatis infection and is selected from, but not limited to, urethritis, endometritis, pelvic inflammatory disease, tubal factor infertility, chronic pelvic pain, cervical dysplasia, ectopic pregnancy, newborn eye infection, newborn lung infection, trachoma and reactive arthritis. The condition associated with a Chlamydia infection is associated with a C. pneumoniae infection and is selected from, but not limited to, pneumonia, acute respiratory disease, atherosclerosis, coronary artery disease, myocardial infarction, cerebrovascular disease, coronary heart disease, aortic aneurysm, stroke, chronic obstructive pulmonary disease, asthma, and sarcoidosis (all claimed).

TECH

BIOTECHNOLOGY - Preferred MVA: An isolated MVA comprises a polynucleotide which encodes a Chlamydia polypeptide comprising an amino acid sequence at least 80% identical to SEQ ID NO: 48, where the Chlamydia polypeptide specifically binds to an antibody raised against SEQ ID NO: 48. The Chlamydia polypeptide comprises SEQ ID NO: 11 or 48. The polynucleotide comprises SEQ ID NO: 10, 12, or 47. The Chlamydia polypeptide comprises amino acid 29-1012 of SEQ ID NO: 44 or amino acids 18-1000 of SEQ ID NO: 46. The polynucleotide further comprises a nucleic acid sequence encoding a signal peptide fused to the Chlamydia polypeptide. The polynucleotide encoding a Chlamydia polypeptide is operably associated with a promoter capable of driving expression of the Chlamydia polypeptide in cells infected with the MVA. The polynucleotide encoding a Chlamydia polypeptide is codon-optimized. The MVA further comprises a polynucleotide encoding an additional Chlamydia polypeptide selected from a PmpG polypeptide, a PmpI polypeptide, a PmpE polypeptide, a PmpH polypeptide, an HtrA polypeptide, a MOMP polypeptide, a PmpD polypeptide, an OmeB polypeptide, an OmpH polypeptide, an immunogenic fragment of any of the Chlamydia polypeptides, and a combination of any of the Chlamydia polypeptides or fragments. The MVA further comprises a polynucleotide encoding a heterologous polypeptide. The MVA is attenuated. The MVA is not capable of replicating in human cells. The MVA is capable of replicating in an avian cell. The polynucleotide is inserted in the MVA genome within a naturally occurring deletion site selected from deletion site 1; deletion site 2; deletion site 3; deletion site 4; deletion site 5; and deletion site 6. The MVA induces an immune response against Chlamydia sp. when administered to a subject. The MVA is capable of preventing, ameliorating, or treating a disease or condition associated with Chlamydia. Sequences not defined here may be found at ftp://ftp.wipo.int/pub/publishedpctsequences/publication. Preferred Host Cell: The host cell is an avian cell. The host cell is immortalized. The host cell is a duck cell, where the host cell is AGE1cr, AGE1cr.pIX, or EB66. Preferred Composition: The composition further comprises an adjuvant selected from alum, bentonite, latex and acrylic particles, pluronic block polymers, squalene, depot formers, surface active materials, lysolecithin, retinal, Quil A, liposomes, and pluronic polymer formulations; macrophage stimulators, alternate pathway complement activators, non-ionic surfactants bacterial components, aluminum-based salts; calcium-based

salts; silica; polynucleotides; toxoids; serum proteins, viruses and virally-derived materials, poisons, venoms, imidazoquiniline compounds, poloxamers, toll-like receptors (TLR) agonists, mLT, CpG, MPL, cationic lipids, Qs21, and a combination of two or more of the adjuvants. Preferred Method: In the method of inducing an immune response against Chlamydia in a subject, the immune response comprises an antibody response. The immune response comprises a cell-mediated immune response. The immune response comprises a cell-mediated immune response and an antibody response. The immune response is a mucosal immune response. In the method for treating, preventing, or reducing the symptoms of a Chlamydia infection or a condition associated with a Chlamydia infection in a subject, or for attenuating or ameliorating a symptom caused by a Chlamydia infection or a condition associated with a Chlamydia infection in a subject, the subject is an animal, where the subject is a vertebrate, where the vertebrate is a mammal, and where the mammal is a human. The subject currently has or previously had a Chlamydia trachomatis infection, where the Chlamydia infection is recurrent. The subject is at risk of a C. trachomatis or Chlamydia pneumoniae infection. The method of reducing the risk of HIV-related ADS in a subject further comprises at least one booster immunization. The booster immunization comprises administering a vaccine composition. The vaccine composition is a DNA vaccine or polypeptide vaccine. The vaccine composition is the MVA, host cell, polypeptide, or composition, or their combination.

L59 ANSWER 20 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2010-A02004 [201007] WPIX
CROSS REFERENCE: 2009-B09659
TITLE: New attenuated Salmonella microorganism comprising an attenuating mutation in a Salmonella Pathogenicity Island 2 gene, useful for the treatment or prevention of a Chlamydial infection or related condition, e.g. urethritis and prostatis
DERWENT CLASS: B03; B04; B07; C06; D16
INVENTOR: LACY M J; REDFERN M R; TELFER J L
PATENT ASSIGNEE: (EMER-N) EMERGENT PROD DEV UK LTD
COUNTRY COUNT: 124

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2009158240	A1	20091230	(201007)*	EN	108[22]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2009158240	A1	WO 2009-US47542	20090616

PRIORITY APPLN. INFO: US 2008-118204P 20081126
WO 2008-US7490 20080616

DETD DETAILED DESCRIPTION - INDEPENDENT CLAIMS are: (1) a composition of the treatment or prevention of a Chlamydial infection or related condition comprising the attenuated Salmonella microorganism above, and a carrier and/or diluents; (2) a method for vaccinating a subject against a Chlamydial infection comprising administering the microorganism above or the composition of (1); (3) a method for preventing or ameliorating a condition associated with a Chlamydial infection comprising administering the microorganism above or the composition of (1); (4) a method of

eliciting an immune response in a subject comprising administering the microorganism above or the composition of (1); (5) a method of reducing the risk of human immunodeficiency virus-related AIDS in a subject comprising administering the microorganism above or the composition of (1); and (6) an antibody to an attenuated Salmonella microorganism above.

USE

USE - The attenuated Salmonella microorganism is useful for the treatment or prevention of a Chlamydial infection or related condition; vaccinating a subject against a Chlamydial infection; preventing or ameliorating a condition associated with a Chlamydial infection; eliciting an immune response; and reducing the risk of human immunodeficiency virus-related AIDS, where the condition associated with a Chlamydial infection is associated with a C. trachomatis infection, e.g. urethritis, prostatis, proctitis, epididymitis, cervicitis, salpingitis, endometritis, pelvic inflammatory disease, tubal factor infertility, chronic pelvic pain, cervical dysplasia, ectopic pregnancy, lymphogranuloma venereum (LGV), newborn eye infection, newborn lung infection, trachoma and reactive arthritis; or it is associated with a C. pneumoniae infection, e.g. pneumonia, acute respiratory disease, atherosclerosis, coronary artery disease, myocardial infarction, carotid artery disease, cerebrovascular disease, coronary heart disease, carotid artery stenosis, aortic aneurysm, claudication, stroke, chronic obstructive pulmonary disease, asthma, reactive airway disease, Reiter's syndrome and sarcoidosis (all claimed).

TECH

BIOTECHNOLOGY - Preferred Microorganism: In the attenuated Salmonella microorganism, the cell induces an effective immune response when administered to a human patient. The second gene is a Salmonella gene involved in the biosynthesis of aromatic compounds, preferably aroC. The SPI-2 gene is ssa, sse, ssc, or ssr gene, preferably ssa gene. The ssa gene is ssaV, ssaJ, ssaU, ssaK, ssaL, ssaM, ssaO, ssaP, ssaQ, ssaR, ssaS, ssaT, ssaU, ssaD, ssaE, ssaG, ssaI, ssaC (spiA), or ssaH, preferably ssaV or ssaJ. The SPI-2 gene is an sse gene, e.g. sseA, sseB, sseC, sseD, sseE, sseF, sseG, sseL and spiC (ssaB). The attenuating mutation in the SPI-2 gene is a deletion or inactivation of the SPI-2 gene, and where the attenuating mutation in the second gene is a deletion or inactivation of the second gene. The attenuated Salmonella cell is derived from Salmonella enterica serovar Typhi ZH9. The gene expression cassette is inserted at the SPI-2 gene deletion site and/or the second gene deletion site. The SPI-2 deletion site is an ssaV gene deletion site and the second gene deletion site is an aroC deletion site. The inducible promoter is a prokaryotic promoter induced under acidic or oxidative conditions. The inducible promoter is induced in macrophages. The inducible promoter is an in vivo inducible promoter, preferably a Salmonella ssaG promoter. The Chlamydial peptide is secreted from the microorganism via a secretion signal. The secretion signal comprises a ClyA secretion signal or its non-hemolytic derivative. The secretion signal comprises an Escherichia coli CS3 secretion signal. The heterologous nucleic acid encoding an immunogenic Chlamydial peptide is codon optimized for gene expression in Salmonella or E. coli. The heterologous nucleic acid has a G/C content of 50%. The immunogenic Chlamydial peptide is PmpG, PmpI, PmpE, MOMP, PmpD, PmpH, OmcB, OmpH, or HtrA or their immunogenic fragment, preferably PmpG or its fragment. The PmpG or its fragment binds to an antibody to PmpG. The PmpG fragment comprises at least 25 contiguous amino acids of PmpG. The PmpG or its fragment is CT84, CT110, or CT40. The Chlamydial peptide is a Chlamydia trachomatis peptide, Chlamydia pneumoniae, or a Chlamydia muridarum peptide. The gene expression cassette further comprises a nucleic acid encoding a linker peptide. The attenuated Salmonella microorganism is S. enterica serovar Typhi, S. enterica serovar Typhimurium, S. enterica serovar Paratyphi, S. enterica serovar

Enteritidis, S. enterica serovar Choleraesuis, S. enterica serovar Gallinarum, S. enterica serovar Dublin, S. enterica serovar Hadar, S. enterica serovar Infantis, and S. enterica serovar Pullorum. The microorganism is modified to express reduced or no lipopolysaccharide (LPS). The microorganism is further modified to express one or more cytokines or chemokines. The cytokine is an interferon. Preferred Composition: The composition further comprises an adjuvant, e.g. CpG oligodeoxynucleotide adjuvant, aluminum salt (e.g., aluminum hydroxide, aluminum oxide and aluminum phosphate), oil-based adjuvant (e.g., Freund's Complete Adjuvant and Freund's Incomplete Adjuvant), mycolate-based adjuvant (e.g., trehalose dimycolate), bacterial LPS, peptidoglycan (e.g., murein, mucopeptide or glycoproteins such as N-Opaca, muramyl dipeptide (MDP), or MDP analog), proteoglycan (e.g., extracted from Klebsiella pneumoniae), streptococcal preparation (e.g., OK432), muramyldipeptide, Immune Stimulating Complex, saponin, diethylamino ethanol (DEAE)-dextran, neutral oil (e.g., miglyol), vegetable oil (e.g., arachis oil), liposome, polyol, Ribi adjuvant, vitamin E, Carbopol and interleukin. Preferred Method: In the methods, administering the microorganism or composition to the subject induces cell-mediated immunity or a mucosal immunoglobulin A (IgA) response. The Chlamydial infection is a C. trachomatis, C. pneumoniae, or C. muridarum infection. The subject preferably has or had a C. trachomatis infection. The Chlamydial infection is recurrent. In the method, the subject is at risk of a C. trachomatis, C. pneumoniae, or C. muridarum infection. Reducing the risk of human immunodeficiency virus-related AIDS further comprises a booster immunization.

L59 ANSWER 21 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2009-R63316 [201001] WPIX
TITLE: New PrfA mutant Listeria, useful for inducing and enhancing an immune response, and for preventing or treating a non-Listerial infectious and cancerous condition
DERWENT CLASS: B02; B04; D16
INVENTOR: BROCKSTEDT D G; DUBENSKY T W; HANSON W; LAUER P M; LUCKETT W S; SKOBLE J
PATENT ASSIGNEE: (ANZA-N) ANZA THERAPEUTICS INC
COUNTRY COUNT: 122

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2009143085	A1	20091126	(201001)*	EN	128[7]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2009143085	A1	WO 2009-US44408	20090518

PRIORITY APPLN. INFO: US 2008-54454P 20080519
TI New PrfA mutant Listeria, useful for inducing and enhancing an immune response, and for preventing or treating a non-Listerial infectious and cancerous condition
TT TT: NEW MUTANT LISTERIA USEFUL INDUCE ENHANCE IMMUNE RESPOND PREVENT TREAT NON INFECT CANCER CONDITION
DETD DETAILED DESCRIPTION - INDEPENDENT CLAIMS are: (1) a pharmaceutical composition comprising the recombinant Listeria bacterium above and one or more of a pharmaceutical excipient, an adjuvant and a costimulatory

molecule; (2) a method of inducing an immune response in a host to an non-Listerial antigen by administering to the host an amount of a composition comprising a recombinant Listeria bacterium above; (3) a method of enhancing the immunogenicity of a non-Listerial antigen in a host by administering to the host an amount of a composition comprising a recombinant Listeria bacterium above; (4) a method of preventing or treating a non-Listerial infectious or cancerous condition in a host by administering to the host an amount of a composition comprising a recombinant Listeria bacterium above; (5) a method for enhancing an immune response in a mammal to a non-Listerial antigen by administering to the mammal an amount of a boost dose of a recombinant Listeria above that encodes the non-Listerial antigen, where the mammal previously had been administered an effective amount of a prime dose of a vaccine that provided the non-Listerial antigen, where: (a) the vaccine does not contain live, metabolically active Listeria that encode the non-Listerial antigen, and (b) when the vaccine contains naked DNA encoding the non-Listerial antigen; and (6) a method of preparing a recombinant Listeria bacterium above.

USE

USE - The bacterium and composition are useful for inducing and enhancing an immune response, for enhancing the immunogenicity of a non-Listerial antigen, and for preventing or treating a non-Listerial infectious and cancerous condition (all claimed).

TECH

BIOTECHNOLOGY - Preferred Bacterium: The PrfAasterisk mutant polypeptide comprises a mutation selected from Tyr63Cys, Glu77Lys, Leu149Phe, Gly145Ser, Gly155Ser (preferred) and Ser183Ala. The recombinant polynucleotide encodes a fusion protein comprising a signal peptide and the heterologous polypeptide. The prfA responsive regulatory element is selected from a hly promoter, a plcA promoter, a plcB promoter, a mpl promoter, a hpt promoter, an inlC promoter, an inlA promoter, an inlB promoter, a prfA promoter and an actA promoter (preferred). The signal peptide is a signal peptide selected from an ActA signal peptide from Listeria monocytogenes (preferred), an LLO signal peptide from L. monocytogenes, a Usp45 signal peptide from Lactococcus lactis, a Protective Antigen signal peptide from Bacillus anthracis, a p60 signal peptide from L. monocytogenes, a PhoD signal peptide from Bacillus subtilis, a secA2 signal peptide and a Tat signal peptide. The fusion protein comprises the first 100 amino acids of ActA. The heterologous polypeptide comprises an antigen selected from a tumor-associated antigen, a polypeptide derived from a tumor-associated antigen, an infectious disease antigen, and a polypeptide derived from an infectious disease antigen. The infectious disease antigen is from a virus or a heterologous infectious pathogen selected from a hepatitis virus, an influenza virus, a HIV, papillomavirus, a herpes simplex virus 1, a herpes simplex virus 2, a cytomegalovirus, a Mycobacterium tuberculosis, a Plasmodium falciparum or a Chlamydia trachomatis. The infectious disease antigen is from a hepatitis A virus, a hepatitis B virus, or a hepatitis C virus. The Listeria bacterium belongs to the species L. monocytogenes. The recombinant Listeria bacterium is attenuated for one or more of cell-to-cell spread, entry into non-phagocytic cells, proliferation or DNA repair. The Listeria is attenuated by one or more of: an actA mutation; an inlB mutation; a uvrA mutation; a uvrB mutation; a uvrC mutation; a nucleic acid targeted compound; or a uvrAB mutation and a nucleic acid targeting compound. The nucleic acid targeting compound is a psoralen. The nucleic acid of the bacterium has been modified by reaction with a nucleic acid targeting compound that reacts directly with the nucleic acid so that the bacterium is attenuated for proliferation. The bacterium comprises nucleic acid cross-links that attenuate the modified bacterium for proliferation. The bacterium comprises psoralen-nucleic acid adducts that

attenuate the bacterium for proliferation. The bacterium further comprises a genetic mutation that attenuates the ability of the bacterium to repair its modified nucleic acid. The bacterium comprises inactivating mutations in actA, iniB, uvrA and uvrB; and where the bacterium has been attenuated for proliferation by psoralen-nucleic acid cross-links. Preferred Composition: The composition further comprises a therapeutic agent. Preferred Method: In the method of inducing an immune response in a host to a non-Listerial antigen, or enhancing the immunogenicity of a non-Listerial antigen, or preventing or treating a non-Listerial infectious or cancerous condition. The immune response comprises an innate immune response or an adaptive immune response. The recombinant Listeria bacterium is administered with an adjuvant and/or a costimulatory molecule. The recombinant Listeria bacterium is administered in combination with a therapeutic agent. Administration of the recombinant Listeria bacterium is repeated. A second administration of the recombinant Listeria bacterium is repeated after two weeks following a first administration of the Listeria bacterium. Administration of the recombinant Listeria bacterium is followed by administration of a vaccine that does not contain live, metabolically active Listeria and that encodes the non-Listerial antigen. In the method for enhancing an immune response in a mammal to a non-Listerial antigen, the immunogenicity to the antigen is enhanced relative to immunogenicity of the antigen induced by a recombinant Listeria bacterium comprising the polynucleotide encoding the heterologous polypeptide, where expression of the polynucleotide encoding the heterologous polypeptide is controlled by a wild-type PrfA polypeptide. The enhanced immunogenicity comprises increased expression of one or any combination of monocyte chemoattractant protein 1 (MCP-1), interleukin (IL)-6, interferon (IFN)- gamma , TNF- alpha or IL-12p70. The host is a human. Preparation (clamed): Preparing a recombinant Listeria bacterium comprises stably introducing a recombinant polynucleotide encoding a heterologous polypeptide into a Listeria bacterium, where the Listeria bacterium comprises a polynucleotide encoding a PrfAasterisk mutant polypeptide; and where the heterologous polypeptide in non-bacterial; and where following introduction into the Listeria bacterium the recombinant polynucleotide encoding the heterologous polypeptide is operably linked to a PrfA responsive regulatory element. The recombinant polynucleotide comprises the PrfA-responsive regulatory element operably linked to the heterologous polypeptide. The recombinant polynucleotide encodes a fusion protein comprising a signal polypeptide and the heterologous polypeptide. The recombinant polynucleotide encoding the heterologous polypeptide is integrated into the Listeria chromosome, where the recombinant polynucleotide encoding the heterologous polypeptide is integrated into a transfer RNA (tRNA) gene of the Listeria chromosome. The signal polypeptide is an ActA signal polypeptide, and where, the recombinant polynucleotide encoding a heterologous polypeptide is introduced into the actA gene of the Listeria. Preparing a recombinant Listeria bacterium where (a) a recombinant polynucleotide encoding a PrfAasterisk mutant polypeptide, and (b) a recombinant polynucleotide encoding a heterologous polypeptide, are stably introduced into a Listeria bacterium, where the Listeria bacterium comprises a nonfunctional prfA allele, and where following introduction of the recombinant polynucleotide encoding the heterologous polypeptide the nucleic acid is operably linked to a PrfA responsive regulatory element.

L59 ANSWER 22 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2009-L22139 [200948] WPIX
TITLE: Producing attenuated Vesicular Stomatitis Virus (VSV) in a cell culture by infecting the cells expressing VSV G protein with an attenuated VSV, growing the infected

cells in culture, and recovering the attenuated VSV from the culture

DERWENT CLASS: B04; D16

INVENTOR: HENDRY R M; JOHNSON J E; PARKS C L; SIDHU M K; WITKO S E; HENDRY R; PARKS C; SIDHU M; WITKO S

PATENT ASSIGNEE: (AMHP-C) WYETH; (AMHP-C) WYETH LLC

COUNTRY COUNT: 123

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2009085178	A1	20090709	(200948)*	EN	62[9]	
US 20090175900	A1	20090709	(200948)	EN		
AU 2008343925	A1	20090709	(201050)	EN		
EP 2225368	A1	20100908	(201059)	EN		
CA 2710356	A1	20090709	(201068)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2009085178	A1	WO 2008-US13834	20081218
US 20090175900	A1 Provisional	US 2007-15375P	20071220
US 20090175900	A1	US 2008-335763	20081216
AU 2008343925	A1	AU 2008-343925	20081218
EP 2225368	A1	EP 2008-868608	20081218
EP 2225368	A1 PCT Application	WO 2008-US13834	20081218
CA 2710356	A1	CA 2008-2710356	20081218
CA 2710356	A1 PCT Application	WO 2008-US13834	20081218
CA 2710356	A1 PCT Nat. Entry	CA 2008-2710356	20100621

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2008343925 A1	Based on	WO 2009085178 A
EP 2225368 A1	Based on	WO 2009085178 A
CA 2710356 A1	Based on	WO 2009085178 A

PRIORITY APPLN. INFO: US 2007-15375P 20071220
US 2007-15375 20071220
US 2008-335763 20081216

TECH

BIOTECHNOLOGY - Preferred Method: In producing attenuated VSV in a cell culture, the attenuated VSV is a propagation-defective VSV. Infecting comprises co-culturing the cells expressing the VSV G protein with cells transfected with: (a) a viral cDNA expression vector comprising a polynucleotide encoding a genome or antigenome of the attenuated VSV; (b) one or more support plasmids encoding a nucleocapsid (N), phosphoprotein (P), large protein (L), and glycoprotein (G) protein of VSV; and (c) a plasmid encoding a DNA-dependent RNA polymerase. The cells are further transfected with a support plasmid encoding an M protein of VSV. The cells are transfected via electroporation. The viral genome-length RNA is transcribed from the polynucleotide encoding the genome or antigenome of the attenuated VSV. The DNA-dependent RNA polymerase is T7 RNA polymerase and where the viral cDNA expression vector and the support plasmids are under the control of a T7 promoter. The VSV G protein encoded by the support plasmid is encoded by an optimized or a non-optimized VSV G gene. The expression of VSV G protein from the

optimized VSV G gene is under the control of a cytomegalovirus-derived RNA polymerase II promoter. It is also under the control of a transcriptional unit recognized by RNA polymerase II producing a functional mRNA. The optimized VSV G gene is derived from an Indiana serotype or New Jersey serotype. The optimized VSV G gene is selected from any of fully defined 1561-1580 bp sequences (SEQ ID NO. 3, 4, or 5) given in the specification. The polynucleotide is operatively linked to a transcription terminator sequence. The polynucleotide is operatively linked to a ribozyme sequence. The attenuated VSV encodes a heterologous antigen, where the heterologous antigen is from a pathogen selected from measles virus, subgroup A and subgroup B respiratory syncytial viruses, human parainfluenza viruses, mumps virus, human papilloma viruses of type 1 or type 2, human immunodeficiency viruses, herpes simplex viruses, cytomegalovirus, rabies virus, human metapneumovirus, Epstein Barr virus, filoviruses, bunyaviruses, flaviviruses, alphaviruses, influenza viruses, hepatitis C virus, or Chlamydia trachomatis. The attenuated VSV further encodes a non-viral molecule selected from a cytokine, a T-helper epitope, a restriction site marker, or a protein of a microbial pathogen or parasite capable of eliciting an immune response in a mammalian host. The cells are qualified production cells. The cells are Vera cells. The attenuated VSV lacks a VSV G protein (VSV- Delta G). The yield of attenuated VSV is greater than 1x106 IU per ml of culture. The attenuated VSV expresses a G protein having a truncated extracellular domain (VSV-Gstem). It also expresses a G protein having a truncated cytoplasmic tail (CT) region. The attenuated VSV further expresses a G protein having a cytoplasmic tail region truncated to one amino acid (G-CT1) or expresses a G protein having a cytoplasmic tail region truncated to nine amino acids (G-CT9). The attenuated VSV comprises the N gene which has been translocated downstream from its wild-type position in the viral genome, thus resulting in a reduction in N protein expression. The attenuated VSV contains non-cytopathic M gene mutations (Mncp), where the mutations reduce the expression of two overlapping in-frame polypeptides that are expressed from the M protein mRNA by initiation of protein synthesis at internal AUGs, affecting interferon (IFN) induction, affecting nuclear transport, or its combinations. Alternatively, producing attenuated VSV in a cell culture comprises: (a) transfecting cells with: (i) a viral cDNA expression vector comprising a polynucleotide encoding a genome or antigenome of the attenuated VSV; (ii) one or more support plasmids encoding N, P, L and G proteins of VSV; and (iii) a plasmid encoding a DNA- dependent RNA polymerase; (b) growing the transfected cells in culture; (c) rescuing the attenuated VSV from the culture; (d) infecting cells expressing VSV G protein encoded by an optimized VSV G gene with the rescued attenuated VSV; (e) growing the infected cells in culture; and (f) recovering the attenuated VSV from the culture of infected cells. Preferred Composition: The composition further comprises one or more support vectors that encode VSV proteins selected from: (a) an N protein; (b) a P protein; (c) an L protein; (d) an M protein; or (e) a G protein. Preferred Kit: The kit further comprises: (a) a viral cDNA expression vector comprising a polynucleotide encoding a genome or antigenome of an attenuated VSV; and (b) a vector that encodes a DNA-dependent RNA polymerase. It further comprises one or more support vectors that encode VSV proteins selected from: (a) an N protein; (b) a P protein; (c) an L protein; (d) an M protein; or (e) a G protein.

L59 ANSWER 23 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2009-R87055 [200982] WPIX
TITLE: Changing load state of major histocompatibility complex molecules for treating e.g. cancer, comprises providing composition comprising major histocompatibility complex molecules, adding optionally modified dipeptide and

isolating
DERWENT CLASS: A96; B04; C06; D16; D22; S03
INVENTOR: FALK K; JUNG G; KUEHNE R; ROETZSCHKE O
PATENT ASSIGNEE: (DELB-N) DELBRUECK-CENT MAX; (LEIB-N) LEIBNITZ-INST MOLEKULARE PHARMAKOLOGIE
COUNTRY COUNT: 38

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 2127664	A1	20091202	(200982)*	EN	55[7]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 2127664 A1		EP 2008-2845	20080215

PRIORITY APPLN. INFO: EP 2008-2845 20080215

USE

USE - Used for changing the load state of MHC molecules, where the load of MHC molecules on antigen-presenting cells (APCs) (endogenous or non-endogenous maturated and non-maturated dendritic cells, B-cells or macrophages or other antigen-presenting cells) is changed to modify immune responses (tumor-specific, pathogen-specific or autoreactive immune responses). The MHC molecule is used for preparation of a composition for triggering tumor-specific, pathogen-specific or autoreactive immune responses and for treating cancer, heptatitis B-induced tumors (hepatocell carcinomas), HTLV-1- and HTLV-2-induced lymphomas, acoustic neuroma, cervical cancer, lung cancer, pharyngeal cancer, anal carcinoma, glioblastoma, lymphomas, rectal carcinoma, astrocytoma, brain tumors, stomach cancer, retinoblastoma, basalioma, brain metastases, medulloblastomas, vaginal cancer, pancreatic cancer, testicular cancer, melanoma, thyroidal carcinoma, bladder cancer, Hodgkin's syndrome, meningiomas, Schneeberger disease, bronchial carcinoma, hypophysis tumor, mycosis fungoides, oesophageal cancer, breast cancer, carcinoids, neurinoma, spinalioma, laryngeal cancer, renal cancer, thymoma, corpus carcinoma, bone cancer, non-Hodgkin's lymphomas, urethral cancer, CUP syndrome, head/neck tumors, oligodendroglioma, vulval cancer, intestinal cancer, colon carcinoma, oesophageal carcinoma, wart involvement, tumors of the small intestine, craniopharyngeomas, ovarian carcinoma, abdomen tumors, ovarian cancer, liver cancer, pancreatic carcinoma, cervical carcinoma, endometrial carcinoma, liver metastases, penile cancer, tongue cancer, gall bladder cancer, plasmocytoma, uterine cancer, lid tumor or prostate cancer), infectious diseases (influenza, malaria, severe acute respiratory syndrome, yellow fever, AIDS, Lyme borreliosis, Leishmaniasis, anthrax, viral infectious diseases such as AIDS, Condyloma acuminata, hollow warts, dengue fever, three-day fever, Ebola virus, cold, early summer meningoencephalitis, flu, shingles, hepatitis, herpes simplex type I, herpes simplex type II, Herpes zoster, Japanese encephalitis, Lassa fever, Marburg virus, measles, foot-and-mouth disease, mononucleosis, mumps, Norwalk virus infection, Pfeiffer's glandular fever, smallpox, polio (childhood lameness), pseudo-croup, fifth disease, rabies, warts, West Nile fever, chickenpox, cytomegalic virus, bacterial infectious diseases comprising abort (prostate inflammation), anthrax, appendicitis, borreliasis, botulism, Camphylobacter, Chlamydia trachomatis (inflammation of the urethra, conjunctivitis), cholera, diphtheria, donavanosis, epiglottitis, typhus fever, gas gangrene, gonorrhoea, rabbit fever, Helicobacter pylori, whooping cough, climatic

bubo, osteomyelitis, Legionnaire's disease, leprosy, listeriosis, pneumonia, meningitis, bacterial meningitis, otitis media, Mycoplasma hominis, neonatal sepsis (Chorioamnionitis), noma, paratyphus, plague, Reiter's syndrome, Rocky Mountain spotted fever, Salmonella paratyphus, Salmonella typhus, scarlet fever, syphilis, tetanus, tripper, tsutsugamushi disease, tuberculosis, typhus, vaginitis (colpitis), soft chancre, infectious diseases caused by parasites, protozoa or fungi, comprising amoebiasis, bilharziosis, Chagas disease, Echinococcus, fish tapeworm, fish poisoning (Ciguatera), fox tapeworm, athlete's foot, canine tapeworm, candidosis, yeast fungus spots, scabies, cutaneous Leishmaniosis, lambliasis (giardiasis), lice, microscopy, onchocercosis (river blindness), fungal diseases, bovine tapeworm, schistosomiasis, porcine tapeworm, toxoplasmosis, trichomoniasis, trypanosomiasis (sleeping sickness), visceral Leishmaniosis, nappy dermatitis or miniature tapeworm) or autoimmune diseases (multiple sclerosis, rheumatoid arthritis, diabetes, type I diabetes, systemic lupus erythematosus, chronic polyarthritis, Basedow's disease, autoimmune forms of chronic hepatitis, Colitis ulcerosa, type I allergic disorders, type II allergic disorders, type III allergic disorders, type IV allergic disorders, fibromyalgia, hair loss, Bechterew's disease, Crohn's disease, Myasthenia gravis, neurodermitis, Polymyalgia rheumatica, progressive systemic sclerosis, psoriasis, psoriasis or vasculitis, or further autoimmune disorders of type I, type II, type III or type IV); for attenuating aggressive immune reactions (all claimed). The dipeptide is used for diagnosis of cancer, infectious diseases or autoimmune diseases. Test details are described but no results given.

L59 ANSWER 24 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2008-K18363 [200860] WPIX
DOC. NO. CPI: C2008-280207 [200860]
TITLE: Cellular vaccine for treating HIV comprises receptor CD4 containing T cells modified to contain antigenic component or nucleic acid molecule encoding it, which are activated or can be activated; and are apoptotic or can be made apoptotic
DERWENT CLASS: B04; D16
INVENTOR: ANDERSSON J; JOHANSSON U; SPETZ-HOLMGREN A; WALTHER-JALLOW L
PATENT ASSIGNEE: (AVAR-N) AVARIS AB; (ANDE-I) ANDERSSON J; (JOHA-I) JOHANSSON U; (SPET-I) SPETZ-HOLMGREN A; (WALT-I) WALTHER-JALLOW L
COUNTRY COUNT: 121

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2008056174	A2	20080515	(200860)*	EN	215[29]	
WO 2008056174	A3	20080703	(200860)	EN		
EP 2089054	A2	20090819	(200955)	EN		
US 20100040589	A1	20100218	(201014)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2008056174	A2	WO 2007-GB4303	20071112
EP 2089054	A2	EP 2007-824532	20071112
EP 2089054	A2 PCT Application	WO 2007-GB4303	20071112
US 20100040589	A1 PCT Application	WO 2007-GB4303	20071112

US 20100040589 A1 US 2009-514233 20091001

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 2089054 A2	Based on	WO 2008056174 A

PRIORITY APPLN. INFO: GB 2006-22399 20061110

ADV ADVANTAGE - The vaccine provides improved cellular vaccine that is autologous or allogenic vaccine. The cellular vaccine comprising or consisting of apoptotic CD4+ T cells is capable of providing a prophylactic and/or therapeutic treatment effect against a pathological condition; by providing active immunization in a host against the pathological condition, and further by providing an activation/maturation signal to immature antigen-presenting cells, which enables effective antigen presentation after uptake and processing of antigen, and leads to induction of immune responses. The composition is efficacious for immunization against the HIV infection.

TECH BIOTECHNOLOGY - Preferred Composition: The vaccine (V1) further comprises a population of antigen-presenting cells. The pharmaceutical composition (C1) further comprises an adjuvant (preferably granulocyte-macrophage-colony stimulating factor (GM-CSF)) and does not comprise a separate adjuvant. The adjuvant composition (C2) comprises or consists of CD4+ T cells and/or CD8+ T cells; and the peripheral blood mononuclear cells (PBMCs) (preferably preferentially or predominantly CD4+ T cells or CD8+ T cells (50 to greater than or equal to 99%)), in which the T cells are further modified such that they contain the antigenic component, and/or nucleic acid molecule encoding the antigenic component; and further comprises a population of antigen-presenting cells. The adjuvant composition (C2) is for use with a vaccine against the pathogenic condition caused by HIV, tuberculosis, malaria, influenza or cancer; and the vaccine comprises or consists of an attenuated or original viral vector selected from adenoviruses (such as adenoviruses 1, 2 and 5, chimpanzee), hepatitis viruses (such as hepatitis B virus, and hepatitis C virus), Pox viruses (such as canarypox, vaccinia), rabies virus, murine leukemia virus, alpha replicons, measles, rubella, polio, calicivirus, paramyxovirus, vesicular stomatitis virus, papilloma, leporipox, parvovirus, papovavirus, togavirus, picornavirus, reovirus, or ortmyxovirus (such as influenza viruses); or a bacterial vector selected from mycobacteria, Salmonella, Listeria, Treponema pallidum, Neisseria gonorrhoeae, Chlamydia trachomatis, or Hemophilus ducreyi. The compositions (C2) and (C5) are frozen. The combination product (C4) is present in the form of a kit comprising the pharmaceutical composition (C3), and a vaccine; each provided in a form that is suitable for administration in conjunction with the other. The combination product (C6) is present in the form of a kit comprising the composition (C5), and the population of antigen-presenting cells; each provided in a form that is suitable for administration in conjunction with the other. The composition (C6') further comprises at least one chemokine/cytokine with anti-viral activity. Preferred Method: The CD4+ T cells are obtained by: (a1) isolating/deriving/purifying the CD4+ T cells from primary lymphocytes from a subject in which the cellular vaccine is to be used, or from a same species as that of the subject in which the cellular vaccine is to be used; (b1) activating a population of CD4+ T cells; (c1) modifying the population of cells, such that they contain an antigenic component comprising a microorganism or its antigenic component, or an antigenic component of a cancer cell, or a nucleic acid molecule encoding the antigenic component; and (d1) inducing the population of CD4+ T cells to

undergo apoptosis, and further (e1) culturing the population of CD4+ T cells in a medium; and (f1) freezing the population of CD4+ T cells. The steps (b1)-(f1) can be performed in any order. The T cells are modified with the antigenic component and/or nucleic acid molecule encoding the antigenic component, such that they contain a microorganism selected from bacteria, mycoplasmas, protozoa, yeasts, prions, archaea, fungi, or viruses (preferably virus, bacterium, or protozoan), its antigenic component, or a nucleic acid molecule encoding them; or an antigenic component of a cancer cell, or a nucleic acid molecule encoding the antigenic component. The method (M1) involves: steps (a1), (c1), (b1), (e1), (f1), (d1), and further (g1) adding a population of antigen-presenting cells to the cellular vaccine (preferably (i) isolating PBMCs from a blood sample from a patient to be treated; (ii) enriching the isolated PBMCs for CD4+ cells (such as the CD8+ cells are depleted from the PBMCs); (iii) culturing the CD4+ cell-enriched cells in vitro; activating the cells (such as with anti-CD8 and anti-CD28 monoclonal antibodies (mAbs) in the presence of interleukin-2 (IL-2)); (iv) collecting the supernatant to provide an HIV virus stock from the patient; stored freezing the obtained virus stock; (v) repeating the steps (i) and (ii) to prepare the cells to be used as immunogens; (vi) culturing the cells obtained in vitro; (vii) activating the cells (with anti-CD8 and anti-CD28 mAbs in the presence of IL-2); (viii) incubating the activated CD8- PBMCs with autologous virus, from the stock obtained in the step (vi), to obtain infected cells; (ix) on the day of immunization of the patient, thawing the infected cells (if frozen), washing and exposing to an apoptosis-inducing agent (preferably gamma-irradiation); and (x) keeping the cells in room temperature after apoptosis induction and using for the immunization (such as within 2 hours)). The T cells of the adjuvant composition (C2) are isolated/derived from the primary lymphocytes same as in the step (a1). The method (M2) for making the adjuvant composition (C2), or the composition (C5) having microbicide activity, involves: obtaining a population of T cells that are activated, or can be activated; and are apoptotic or can be made apoptotic. The method (M2') for making a composition having microbicide activity (C6') involves: contacting a population of activated, apoptotic T cells with a population of antigen-presenting cells in a cell medium in vitro; and then obtaining cell medium from it. The method (M3) for enhancing the effect of a vaccine involves: administering the adjuvant composition (C2), the pharmaceutical composition (C2), or the combination product (C4). The method (M4) for activating antigen-presenting cells involves: contacting the antigen-presenting cells with the adjuvant composition (C2), the pharmaceutical composition (C3), or the combination product (C4). The method (M5) for treatment of a pathological condition involves: administering the cellular vaccine (V1); the pharmaceutical composition (C1), (C3), or (C5); a vaccine and the adjuvant composition (C2); or the combination product (C4) or (C6). The T cells of the composition (C5) are additionally obtained or derived from an immortalized cell line. The method (M2) further involves steps (e1)-(g1). In the method (M5), the T cells are exposed to an apoptosis-inducing agent, immediately prior to administration to the subject. The T cells are modified by a method selected from transfection with a nucleic acid molecule encoding the antigen component (preferably microbial genes of HIV, hepatitis B and C virus, cytomegalovirus (CMV), Epstein-Barr virus (EBV), influenza virus, or Mycobacterium tuberculosis genes) using nanoparticles; infection with a virus selected from viruses within the herpes virus family (such as EBV), or retroviruses (such as HIV (preferably HIV-1, or HIV-2)); or fusion. Preferred Cells: The antigen-presenting cells are macrophages, or dendritic cells. The cells are frozen. Preferred Components: The T cells are activated or can be activated, by exposure to an activating agent selected from lectins (preferably phytohemagglutinin (PHA), or

concanavalin A (ConA)); chemicals or agents that induce Ca2+ influx in the T cells (preferably ionomycin); alloantigens, superantigens (preferably Staphylococcal enterotoxin A (SEA), or Staphylococcal enterotoxin B (SEB)); monoclonal antibodies (preferably anti-CD3, anti-CD28, or anti-CD49d); cytokines (preferably IL-1, or tumor necrosis factor- alpha (TNF- alpha)), chemokine and chemokine receptors; or molecules capable of interfering with T cell surface receptors or their signal transducing molecules (preferably PHA; anti-CD3 antibody, either alone or in combination with anti-CD28 antibody; or anti-CD49d antibody). The T cells are apoptotic, or can be made apoptotic, by exposure to an apoptosis-inducing agent selected from gamma-irradiation, cytostatic drugs, UV-irradiation, mitomycin C, starvation (such as serum deprivation), Fas ligation, cytokines and activators of cell death receptors, growth factors and their signal transducing molecules, interference with cyclins, over-expression of oncogenes, molecules interfering with anti-apoptotic molecules, interference of the membrane potential of the mitochondria, or steroids (preferably gamma-irradiation).

L59 ANSWER 25 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2008-F86813 [200837] WPIX
DOC. NO. CPI: C2008-189448 [200837]
DOC. NO. NON-CPI: N2008-458885 [200837]
TITLE: Immunological monitoring comprises incubating a sample obtained from a mammal with at least one test S antigen, determining the CCL8 level in the sample, and comparing the determined CCL8 level with a reference-level
DERWENT CLASS: B04; D16; S03
INVENTOR: EUGEN-OLSEN J; RAVN P; RUHWALD M
PATENT ASSIGNEE: (HVID-N) HVIDOVRE HOSPITAL
COUNTRY COUNT: 120

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2008052566	A1	20080508	(200837)*	EN	106[6]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2008052566	A1	WO 2007-DK50159	20071101

PRIORITY APPLN. INFO: DK 2006-1419 20061102
TECH
BIOTECHNOLOGY - Preferred Method: In the immunological method above, the sample is divided into at least 2 fractions, the method comprises: (a) incubating the first fraction of the sample with at least one test-antigen to generate a response sample; (b) incubating the second fraction of the sample with an inactive solution to generate a nil sample; (c) determining the CCL8 level in the two fractions; (d) determining the antigen-dependent CCL8 response of the sample by subtracting the CCL8 level determined in the nil sample from the CCL8 determined in the response sample; and (e) comparing the antigen-dependent CCL8 response or a value derived from it with a reference-level or a value derived from it, thus determining whether the mammal has previously encountered the test-antigen by generating an immunological reactivity to the test-antigen or whether the mammal has previously encountered other antigens generating immunological cross reactivity to the test-antigen. The sample is divided into 3 fractions and incubating the third fraction

of the sample with a mitogen to generate a positive control. The antigen-dependent response is corrected for the immune responsiveness of the mammal. An antigen-dependent CCL8 response above the reference-level and a nil sample above or below a nil reference-level indicate that the mammal has an active infection, a latent infection, a recent infection, and/or a long term latent infection. The antigen-dependent CCL8 response above the reference-level indicate that the mammal has previously encountered the test-antigen or that the mammal has previously encountered other antigens generating cross reactivity to the test-antigen because of an infection. The antigen-dependent CCL8 response above the reference-level indicate that the mammal has previously encountered the test-antigen or that the mammal has previously encountered other antigens generating cross reactivity to the test antigen because of vaccination. The infection is or was caused by a microorganism selected from Mycobacterium, Leishmania, Chlamydia, Trypanosoma, or Schistosoma. The Mycobacterium belongs to M. tuberculosis complex organisms (M. tuberculosis, M. bovis, and M. africanum), and Mycobacterium where the region of difference (RD1) has not been deleted (a M. kansasii, M. szulgai, M. marinum, M. flavescens, M gastrii) or Mycobacterium pathogenic to humans (M. avium, M. leprae, or other non-tuberculous mycobacterium). The test-antigen is selected from early secreted antigenic target 6 (ESAT-6), culture filtrate protein 10 (CFP-10), TB7.7, Ag85, or other RD-1 antigens. Chlamydia is selected from C. trachomatis, C. pneumonia, C. psittaci, C. muridarum, or C. suis. The test-antigen is selected from Serovar D extract, Serovar D lysate, major outer membrane protein (MOMP), cysteine-rich outer membrane proteins (OMPs), OMP2, OMP3, Polymorphic OMPs (POMP5), adenosine diphosphate/adenosine triphosphate translocase of Chlamydia pneumonia, porin B proteins (PorBs), or CT521. In the method, the sample is derived from blood. The method further comprises: (a) determining the level of IP-10, MCP-1, interleukin (IL)-1RA, IL-2, interferon (INF)-gamma , IL-10, sCD40L, and/or MIG in response to the test S antigen; (b) combining the determined level of IP-10, MCP-1, IL-1RA, IL-2, INF-gamma , IL-10, sCD40L, and/or MIG; and (c) comparing the combined level with a combined reference-level.

L59 ANSWER 26 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2007-778126 [200772] WPIX
TITLE: Use of a transfection reagent as an adjuvant, useful in preparing a composition for eliciting an immune response
DERWENT CLASS: A96; B04; C06; D16
INVENTOR: SATTENTAU Q; SHEPPARD N
PATENT ASSIGNEE: (UYOX-C) ISIS INNOVATION LTD
COUNTRY COUNT: 119

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2007107739	A1	20070927	(200772)*	EN	59[7]	
EP 2007422	A1	20081231	(200904)	EN		
US 20090297551	A1	20091203	(200979)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2007107739	A1	WO 2007-GB979	20070319
EP 2007422	A1	EP 2007-732071	20070319
EP 2007422	A1 PCT Application	WO 2007-GB979	20070319
US 20090297551	A1 PCT Application	WO 2007-GB979	20070319

US 20090297551 A1 US 2009-293380 20090409

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 2007422 A1	Based on	WO 2007107739 A

PRIORITY APPLN. INFO: GB 2006-5521 20060318

TI Use of a transfection reagent as an adjuvant, useful in preparing a composition for eliciting an immune response

TT TT: TRANSFECTED REAGENT ADJUVANT USEFUL PREPARATION COMPOSITION ELICIT IMMUNE RESPOND

DETD DETAILED DESCRIPTION - INDEPENDENT CLAIMS are:

(1) an adjuvant composition comprising a transfection reagent;

(2) an immunogenic composition, capable of eliciting an immune response to an antigen when administered to a human or non-human animal, comprising one or more antigens and an adjuvant composition;

(3) a vaccine composition comprising one or more antigens and an adjuvant composition;

(4) an anti-viral and/or an anti-cancer and/or an immuno-modulating composition comprising an adjuvant of (1);

(5) a pharmaceutical composition comprising an adjuvant or composition, and one or more physiological carriers, diluents, excipients or auxiliaries; and

(6) a method for inducing or enhancing immunogenicity of an antigen in a human or non-human animal subject to be treated.

USE

USE - The transfection reagent is used as an adjuvant. The immunogenic composition is used as a vaccine. The adjuvant composition or immunogenic composition is useful in therapeutic or prophylactic treatments or both. The adjuvant composition is useful in preparing a composition for eliciting an immune response, where the composition for eliciting an immune response is a vaccine, where the composition also comprises one or more antigens, and where the composition does not comprise a ligand for one or more intracellular immune response receptors (all claimed).

TECH

BIOTECHNOLOGY - Preferred Adjuvant Composition: The transfection reagent is non-liposomal, where the non-liposomal transfection reagent is a cationic polymer. The transfection reagent is PEI or an effective derivative of PEI. The adjuvant stimulates an immune response selected from a Th1 immune response, a Th2 immune response and a combination of a Th1 and a Th2 immune response, when administered to a human or non-human animal. The adjuvant comprises one or more ligands for one or more intracellular immune response receptors. The adjuvant does not comprise a ligand for one or more intracellular immune response receptors. Preferred Immunogenic or Vaccine Composition: The antigen is a nucleic acid, protein, peptide, glycoprotein, polysaccharide, carbohydrate, fusion protein, lipid, glycolipid, peptide mimic of a polysaccharide, cell, cell extract, dead or its attenuated cell or extract, tumor cell or its extract, or a viral particle or its extract, or their combination. The antigen is derived from a human or non-human animal, bacterium, virus, fungus, protozoan or prion. The antigen is derived from a pathogen, where the antigen is a protein or polypeptide derived from one or more of the following pathogens, HIV type 1, HIV type 2, the Human T Cell Leukemia Virus type 1, the Human T Cell Leukemia Virus type 2, the Herpes Simplex Virus type 1, the Herpes Simplex Virus type 2, the human papillomavirus, Treponema pallidum, Neisseria gonorrheae, Chlamydia trachomatis and Candida albicans. The antigen is an HIV

envelope glycoprotein (Env), or its fragment or immunogenic derivative, where the antigen has at least 65% identity to the sequence of Sequence ID no: 2 or 4. Preferred Method: Inducing or enhancing immunogenicity of an antigen in a human or non-human animal subject to be treated comprises administering to the subject one or more antigens and an adjuvant composition in an amount to induce or enhance the immunogenicity of the antigen in the subject. The adjuvant and antigen are administered simultaneously, sequentially or separately. The immune reaction produced is sufficient to vaccinate a subject against a pathogen from which the antigen is derived.

L59 ANSWER 27 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2007-123459 [200712] WPIX
DOC. NO. CPI: C2007-045816 [200712]
TITLE: New chimeric immunogen for inducing immune response for Chlamydia trachomatis comprises receptor binding domain, translocation domain, and Chlamydia trachomatis antigen comprising a specified amino acid sequence
DERWENT CLASS: B04; D16
INVENTOR: DEAN D; MRSNY R J; MRSNY R
PATENT ASSIGNEE: (CHIL-N) CHILDRENS HOSPITAL & RES CENT AT OAKLAND; (TRIN-N) TRINITY BIOSYSTEMS INC; (CHIL-N) CHILDRENS HOSPITAL&RES CENT AT OAKLAND
COUNTRY COUNT: 112

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2006125076	A2	20061123	(200712)*	EN	129[13]	
AU 2006247188	A1	20061123	(200812)	EN		
EP 1885393	A2	20080213	(200813)	EN		
CA 2609038	A1	20061123	(200864)	EN		
WO 2006125076	A8	20081218	(200902)	EN		
US 20090214570	A1	20090827	(200957)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2006125076	A2	WO 2006-US19232	20060517
AU 2006247188	A1	AU 2006-247188	20060517
CA 2609038	A1	CA 2006-2609038	20060517
EP 1885393	A2	EP 2006-760091	20060517
EP 1885393	A2 PCT Application	WO 2006-US19232	20060517
CA 2609038	A1 PCT Application	WO 2006-US19232	20060517
CA 2609038	A1 PCT Nat. Entry	CA 2006-2609038	20071119
US 20090214570	A1 Provisional	US 2005-682616P	20050518
US 20090214570	A1 PCT Application	WO 2006-US19232	20060517
US 20090214570	A1	US 2008-914734	20080808

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2006247188	A1	Based on	WO 2006125076 A
EP 1885393	A2	Based on	WO 2006125076 A
CA 2609038	A1	Based on	WO 2006125076 A

PRIORITY APPLN. INFO: US 2005-682616P 20050518

US 2005-682616P 20050518
US 2008-914734 20080808

TI New chimeric immunogen for inducing immune response for Chlamydia trachomatis comprises receptor binding domain, translocation domain, and Chlamydia trachomatis antigen comprising a specified amino acid sequence

TT TT: NEW CHIMERIC IMMUNOGENIC INDUCE IMMUNE RESPOND CHLAMYDIA TRACHOMATIS COMPRISE RECEPTOR BIND DOMAIN ANTIGEN SPECIFIED AMINO ACID SEQUENCE

DETD DETAILED DESCRIPTION - A new chimeric immunogen (A1), (A2) or (A3) comprises: a receptor binding domain, a translocation domain, and a Chlamydia trachomatis antigen (A'1), (A'2) or (A'3) comprising an amino acid sequence (S1), (S2) or (S3), of formula (Ia)-(Ic), and the defined amino acid sequence of (SEQ ID No: 42), (SEQ ID No: 2) and (SEQ ID No: 3), given in the specification, respectively.

Xaa1-Xaa2-Xaa3-Xaa4-Xaa5-Xaa6-Xaa7-Xaa8-Xaa9-Xaa10-Xaa11-Xaa12-Xaa13-Xaa14-Xaa15-Xaa16-Xaa17-Xaa18-Xaa19-Xaa20-Xaa21-Xaa22-Xaa23-Xaa24-Xaa25-Xaa26-Xaa27 (Ia)

Xaa1a-Xaa2a Xaa3a-Xaa4a-Xaa5a-Xaa6a (Ib)

Xaa1b-Xaa2b-Xaa3b-Xaa4b-Xaa5b-Xaa6b-Xaa7b-Xaa8b-Xaa9b-Xaa10b-Xaa11b-Xaa12b-Xaa13b-Xaa14b-Xaa15b-Xaa16b-Xaa17b-Xaa18b-Xaa19b-Xaa20b-Xaa21b-Xaa22b-Xaa23b (Ic)

Xaa1=Ala, Val or absent;
Xaa2=Glu, Thr, Lys or absent;
Xaa3=Ala, Thr, Pro or absent;
Xaa4=Ile, Val or absent;
Xaa5=Phe, Leu, Val or absent;
Xaa6=Asp or absent;
Xaa7=Val, Thr, Ile or absent;
Xaa8=Thr;
Xaa9=Thr;
Xaa10=Leu;
Xaa11=Asn;
Xaa12=Pro or Arg;
Xaa13=Thr;
Xaa14=Thr or Ile;
Xaa15=Ala or Thr;
Xaa16=Gly;
Xaa17=Ala, Cys, Lys or absent;
Xaa18=Gly or absent;
Xaa19=Ser, Gly, Thr, Ala, Glu, Asp or absent;
Xaa20=Val or absent;
Xaa21=Ala, Val, Ile, Lys or absent;
Xaa22=Ala, Gly, Ser, Thr or absent;
Xaa23=Ala, Gly, Asn, Ser or absent;
Xaa24=Gly, Asn or absent;
Xaa25=Ala, Ser, Thr or absent;
Xaa26=Asp, Glu or absent;
Xaa27=Gly, Asn or absent;
Xaa1a=Ala or Ser;
Xaa2a=Gly;
Xaa3a=Thr;
Xaa4a=Asp or Glu;
Xaa5a=Ala or Gly;
Xaa6a=Ala or Val;
Xaa1b=Gly;
Xaa2b=Ala, Asp or Glu;
Xaa3b=Ala, Glu or Lys;
Xaa4b=Leu or Pro;
Xaa5b=Ala or Thr;
Xaa6b=Ala, Gly, Ser, Thr or Val;

Xaa7b=Lys, Asn, Arg, Ser or absent;
Xaa8b=Ala, Asp or absent;
Xaa9b=Ala, Asp, Ile, Ser, Thr or Val;
Xaa10b=Ala, Glu, Gly, Thr or Val;
Xaa11b=Asp, Gly or Asn;
Xaa12=Leu, Asn or Thr;
Xaa13b=Ala, Glu, Gln, Ser or Thr;
Xaa14b=Ala, Lys, Asn, Ser or Thr;
Xaa15b=Ala, Asp or Thr;
Xaa16b=Leu or Pro;
Xaa17b=Lys, Ser, Thr or Val;
Xaa28b=Ile, Lys, Thr or Val;
Xaa19b=Cys, Leu or Asn;
Xaa20b=Ile, Thr or Val;
Xaa21b=Ala or Glu;
Xaa22b=Ar;
Xaa23b=Glu, Pro or Thr.

INDEPENDENT CLAIMS are included for:

(1) a chimeric immunogen (A4), comprising a receptor binding domain, a translocation domain, and a C. trachomatis antigen (A'4) comprising a sequence selected from 16 sequences (S4) of (SEQ ID No: 4-19), given in the specification, where (A4) induces an immune response effective to reduce adherence of a microorganism that expresses the C. trachomatis antigen to epithelial cells of a subject;

(2) a polynucleotide (N1) that encodes (A4);

(3) an expression vector (V1) comprising (N1);

(4) a cell (C1) comprising (V1);

(5) making (M) a chimeric immunogen by culturing (C1) to express the chimeric immunogen from the expression vector, and isolating the immunogen from the cell culture;

(6) a C. trachomatis antigen (A') having a sequence selected from (S4);

(7) a composition (C2) comprising (A1);

(8) a composition (C3) comprising (A'); and

(9) a kit comprising an article of manufacture containing (C2) or (C3).

USE

USE - For inducing an immune response against Chlamydia trachomatis antigens, in a subject, (such as rodent, lagomorph or primate, especially a human) (claimed), including as a vaccine composition.

ADV ADVANTAGE - The chimeric immunogen comprises an antigen having amino acid sequences of Chlamydia trachomatis, and additionally receptor binding domain for several receptors, and translocation domain that translocates from cell exterior to cell to interior; and are capable of inducing immune response specific for polypeptides comprising C. trachomatis major outer membrane protein (MOMP) sequences; and reducing or preventing the C. trachomatis adherence to epithelial cells. The chimeric immunogen is capable of eliciting immune response that recognizes heterologous antigen and/or is specific for the heterologous antigen. The heterologous antigen and the structure of the chimeric immunogen can be selected to facilitate eliciting a humoral, cellular and/or mucosal immune response. Further, depending on pathway by which chimeric immunogen is processed in antigen-presenting cell, chimeric immunogen can induce an immune response mediated by either class I or class II major histocompatibility complex (MHC). The chimeric immunogens can also be used to elicit a protective immune response without using attenuated or inactivated pathogens. Thus, avoid risk of incomplete inactivation or attenuation of a pathogen or reversion of the pathogen to a fully infectious state, and lead to infection.

TECH

BIOTECHNOLOGY - Preferred Antigen: The C. trachomatis comprises a sequence selected from the sequences (S4).
Preferred Composition: The C. trachomatis antigen (A'1) is inserted into domain Ib of Pseudomonas exotoxin A, so that the antigen replaces all or a portion of the domain Ib. The C. trachomatis antigen (A1) is located between the translocation domain and the endoplasmic reticulum retention domain. The chimeric immunogen (A1) comprises more than one of the C. trachomatis antigens (preferably Ala-Gly-Thr-Glu-Ala-Ala (SEQ ID No: 4) and Ala-Glu-Thr-Ile-Phe-Asp-Val-Thr-Thr-Leu-Asn-Pro-Thr-Ile-Ala-Gly-Ala-Gly-Asp-Val-Lys-Thr-Ser-Ala-Glu-Gly (SEQ ID No: 6); optionally (SEQ ID No: 4), Ala-Gly-Thr-Asp-Ala-Ala (SEQ ID No: 5) and (SEQ ID No: 6); or (SEQ ID No: 4) or (SEQ ID No: 5) and Gly-Ala-Lys-Pro-Thr-Ala-Thr-Thr-Gly-Asn-Ala-Thr-Ala-Pro-Ser-Thr-Leu-Thr-Ala-Arg-Glu (SEQ ID No: 9)). The chimeric translocation domain is selected from translocation domains from Pseudomonas exotoxin A, diphtheria toxin, pertussis toxin, cholera toxin, heat-labile E. coli enterotoxin, shiga toxin, or shiga-like toxin (preferably Pseudomonas exotoxin A; especially a domain comprising amino acids 280 - 364 of domain II of Pseudomonas exotoxin A). The receptor binding domain is selected from domain Ia of Pseudomonas exotoxin A; a receptor binding domain from cholera toxin, diphtheria toxin, shiga toxin, or shiga-like toxin; a monoclonal, polyclonal, or single-chain antibody; transforming growth factor-alpha (TGF-alpha), TGF-beta, epidermal growth factor (EGF), platelet derived growth factor (PDGF), insulin-like growth factor (IGF), fibroblast growth factor (FGF); interleukin (IL-1), IL-2, IL-3, IL-6; macrophage inflammatory protein-1a (MIP-1a), MIP-1b, macrophage factor (MCAF) or IL-8 (preferably domain Ia of Pseudomonas exotoxin A; especially domain Ia of Pseudomonas exotoxin A having an amino acid sequence of (SEQ ID No: 22), given in the specification. The receptor binding domain binds to alpha2-macroglobulin receptor, epidermal growth factor receptor, transferrin receptor, interleukin-2 receptor, interleukin-6 receptor, interleukin-8 receptor, Fc receptor, poly-IgG receptor, asialoglycopolypeptide receptor, complementarity determining domain 3 (CD3), CD4, CD8, chemokine receptor, CD25, CD11B5 CD11C, CD80, CD86, tumor necrosis factor-alpha (TNF-alpha) receptor, TOLL receptor, macrophage colony stimulating factor (M-CSF) receptor, granulocyte macrophage colony stimulating factor (GM-CSF) receptor, scavenger receptor, or vascular endothelial growth factor (VEGF) receptor (preferably alpha2-macroglobulin receptor). The chimeric immunogen (A1) further comprises an endoplasmic reticulum retention domain (preferably enzymatically inactive domain III of Pseudomonas exotoxin A, inactivated by deleting a glutamate at position 553; especially an amino acid sequence selected from Arg-Asp-Glu-Leu (SEQ ID No: 20) or Lys-Asp-Glu-Leu (SEQ ID No: 21); particularly (SEQ ID No: 20).
Preferred Antigen: The immune response induced against the C. trachomatis antigen by the antigen (A') does not recognize an epitope having the amino acid sequence Gln-Leu-Gly (SEQ ID No: 36) and Ser-Ala-Glu-Gly-Gln-Leu-Gly (SEQ ID NO: 37); an epitope having the amino acid sequence Gly-Thr-Asp-Glu-Leu-Ala (SEQ ID NO: 38) and Ala-Glu-Cys-Gly-Thr-Asp-Glu-Leu-Ala (SEQ ID NO: 39); or an epitope having the amino acid sequence Thr-Thr-Asn-Val-Ala-Arg-Pro (SEQ ID NO: 40); when the antigen (A') comprises the amino acid sequence of (SEQ ID No: 6), (SEQ ID No: 7) and Thr-Thr-Ser-Asp-Val-Ala-Gly-Leu-Gln-Asn-Asp-Pro-Ala (SEQ ID No: 10), respectively.
ORGANIC CHEMISTRY - Preferred Composition: The composition (C2) or (C3) further comprises a diluent, excipient, vehicle or carrier.
PHARMACEUTICALS - Preferred Kit: The article contains a single-unit dose of the composition (C2) or (C3). The article is a sterile vial, an inhaler, or a device configured for nasal administration of the composition. The kit further comprises instructions for administering the composition to a subject, which comprise directing a medical professional

to administer the composition nasally or orally, or directing the subject to self-administer the composition nasally or orally.

L59 ANSWER 28 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2005-467099 [200547] WPIX
TITLE: Conjugating peptide immunogen by reacting derivatized protein/polypeptide carrier with a reactive group of an amino acid of the peptide immunogen so that the peptide immunogen is conjugated to derivatized protein/polypeptide carrier
DERWENT CLASS: B04; D16
INVENTOR: ARUMUGHAM R; ARUMUGHAM R G; PRASAD A; PRASAD A K; PRASAD K A; KRISHNA P A
PATENT ASSIGNEE: (AMHP-C) WYETH; (ELAN-C) ELAN PHARM INC
COUNTRY COUNT: 108

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2005058941	A2	20050630	(200547)*	EN	150[10]	
EP 1699810	A2	20060913	(200660)	EN		
NO 2006002765	A	20060914	(200668)	NO		
MX 2006006821	A1	20060901	(200706)	ES		
AU 2004299512	A1	20050630	(200707)	EN		
BR 2004017689	A	20070403	(200727)	PT		
IN 2006DN03396	A	20070504	(200746)	EN		
US 20070161088	A1	20070712	(200748)	EN		
CN 1934127	A	20070321	(200752)	ZH		
KR 2007026363	A	20070308	(200755)	KO		
JP 2007534650	T	20071129	(200780)	JA	100	
US 20080145373	A1	20080619	(200843)	EN		
US 20080299074	A1	20081204	(200882)	EN		
SG 149039	A1	20090129	(200920)	EN		
TW 2005033679	A	20051016	(200956)	ZH		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005058941	A2	WO 2004-US44093	20041217
US 20070161088	A1 Provisional	US 2003-530481P	20031217
US 20080145373	A1 Provisional	US 2003-530481P	20031217
US 20080299074	A1 Provisional	US 2003-530481P	20031217
AU 2004299512	A1	AU 2004-299512	20041217
BR 2004017689	A	BR 2004-17689	20041217
CN 1934127	A	CN 2004-80041798	20041217
EP 1699810	A2	EP 2004-817081	20041217
EP 1699810	A2 PCT Application	WO 2004-US44093	20041217
NO 2006002765	A PCT Application	WO 2004-US44093	20041217
MX 2006006821	A1 PCT Application	WO 2004-US44093	20041217
BR 2004017689	A PCT Application	WO 2004-US44093	20041217
IN 2006DN03396	A PCT Application	WO 2004-US44093	20041217
US 20070161088	A1 PCT Application	WO 2004-US44093	20041217
KR 2007026363	A PCT Application	WO 2004-US44093	20041217
JP 2007534650	T PCT Application	WO 2004-US44093	20041217
US 20080145373	A1 Div Ex	WO 2004-US44093	20041217
US 20080299074	A1 Div Ex	WO 2004-US44093	20041217
JP 2007534650	T	JP 2006-545618	20041217
IN 2006DN03396	A	IN 2006-DN3396	20060613

NO 2006002765 A	NO 2006-2765 20060613
MX 2006006821 A1	MX 2006-6821 20060615
KR 2007026363 A	KR 2006-714293 20060714
US 20070161088 A1	US 2006-583503 20061117
US 20080145373 A1 Div Ex	US 2006-583503 20061117
US 20080299074 A1 Div Ex	US 2006-583503 20061117
US 20080145373 A1	US 2007-841919 20070820
US 20080299074 A1	US 2007-841993 20070820
SG 149039 A1	SG 2008-9362 20041217
TW 2005033679 A	TW 2004-139610 20041217

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1699810 A2	Based on	WO 2005058941 A
MX 2006006821 A1	Based on	WO 2005058941 A
AU 2004299512 A1	Based on	WO 2005058941 A
BR 2004017689 A	Based on	WO 2005058941 A
KR 2007026363 A	Based on	WO 2005058941 A
JP 2007534650 T	Based on	WO 2005058941 A

PRIORITY APPLN. INFO: US 2003-530481P 20031217
US 2003-530481P 20031217
WO 2004-US44093 20041217
US 2006-583503 20061117
US 2007-841919 20070820
US 2007-841993 20070820

DETD DETAILED DESCRIPTION - Conjugating a peptide immunogen comprising Abeta peptide or fragments of Abeta or analogs via a reactive group of an amino acid residue of the peptide immunogen to a protein/polypeptide carrier having one or more functional groups, comprises:

(A) derivatizing one or more of the functional groups of the protein/polypeptide carrier or optionally to a polypeptide linker attached to the protein/polypeptide carrier to generate a derivatized carrier with reactive sites;

(B) reacting the derivatized protein/polypeptide carrier of (a) with a reactive group of an amino acid of the peptide immunogen comprising Abeta peptide or fragments of Abeta or analogs under reaction conditions so that the peptide immunogen is conjugated to the derivatized protein/polypeptide carrier via at least one of the reactive sites, thus forming a conjugate; and

(C) further reacting the conjugate with a capping reagent to inactive free, reactive unreacted reactive sites on the derivatized protein/polypeptide carrier, where the conjugate elicits a desired immune against the Abeta peptide.

INDEPENDENT CLAIMS are also included for:

(1) a composition comprising a peptide immunogen-protein/polypeptide carrier conjugate where the protein/polypeptide carrier having the formula given in the specification, where C is a protein/polypeptide carrier and X is a derivatizable functional group of an amino acid residue on the protein/polypeptide carrier or optionally of an amino acid residue of a peptide linker covalently attached to the protein/polypeptide carrier, and m is an integer greater than 0, but less than or equal to 85, and where the peptide immunogen-protein/polypeptide carrier conjugate has the formula given in the specification, where C is the protein/polypeptide carrier and Xd is a derivatized functional group of an amino acid residue of the protein/polypeptide carrier or optionally of an amino acid residue of a peptide linker covalently attached to the protein/polypeptide carrier,

and, where P is a peptide immunogen comprising Abeta peptide or fragments of Abeta or analogs covalently attached to the derivatized functional group of the amino acid residue of the protein carrier or optionally of an amino acid residue of a peptide linker covalently attached to a protein/polypeptide carder, R is a capping molecule covalently attached to the derivatized functional group of an amino acid residue of the protein/polypeptide carrier or optionally of an amino acid residue of a peptide linker covalently attached to a protein/polypeptide carrier, thus preserving the functionality of the carrier so that it retains its ability to elicit the desired immune responses against the peptide immunogen comprising the Abeta peptide or fragments of Abeta or analogs that would otherwise not occur without a carrier, n is an integer greater than 0, but less than or equal to 85, and p is an integer greater than 0, but less than 85;

(2) a peptide immunogen-protein/polypeptide carrier conjugate generated from the method above;

(3) an immunogenic composition comprising a conjugate of a peptide immunogen with a protein/polypeptide carrier generated by the method above together with one or more pharmaceutical excipients, diluents, and/or adjuvants; and

(4) inducing an immune response in a mammalian subject.

TECH

BIOTECHNOLOGY - Preferred Method: In conjugating a peptide immunogen, the carrier is selected from human serum albumin, keyhole limpet hemocyanin (KLH), immunoglobulin molecules, thyroglobulin, ovalbumin, influenza hemagglutinin, PADRE polypeptide, malaria circumsporozite (CS) protein, hepatitis B surface antigen (HBSAg19-28), Heat Shock Protein (HSP) 65, Mycobacterium tuberculosis, cholera toxin, cholera toxin mutants with reduced toxicity, diphtheria toxin, CRM197 protein that is cross-reactive with diphtheria toxin, recombinant Streptococcal C5a peptidase, Streptococcus pyogenes ORF1224, S. pyogenes ORF1664, S. pyogenes ORF2452, S. pneumoniae pneumolysin, pneumolysin mutants with reduced toxicity, Chlamydia pneumoniae ORF T367, C. pneumoniae ORF T858, Tetanus toxoid, HIV gp120 T1, components recognizing microbial surface adhesive matrix molecules (MSCRAMMS), growth factors, hormones, cytokines, or chemokines. The carrier contains a T-cell epitope. The carrier is also a bacterial toxoid. The growth factor or hormone is selected from IL-1, IL-2, gamma-interferon, IL-10, GM-CSF, MIP-1alpha, MIP-1beta, or RANTES. The peptide immunogen is an Abeta fragment, where the Abeta fragment is from the N-terminal half of Abeta. The Abeta fragment is selected from Abeta1-3, 1-4, 1-5, 1-6, 1-7, 1-9, 1-10, 1-11, 1-12, 1-16, 36, or 3-7. Preferably, the Abeta fragment is Abeta1-5, 1-7, 1-9, or 1-12. The Abeta fragment is also from the C-terminal half of Abeta. It is from Abeta33-42, 35-40, or 35-42. The Abeta fragment is also from the internal portion of Abeta, and is selected from Abeta13-28, 15-24, 16-22, 16-23, 17-23, 17-24, 18-24, 1825, 17-28, or 25-35. The Abeta fragment is also selected from Abeta1-3, 1-4, 1-5, 1-6, 1-7, 1-10, 1-11, 1-12, 1-16, 1-28 3-6, 3-7, 13-28, 15-24, 16-22, 16-23, 17-23, 17-24, 18-24, 18-25, 17-28, 25-35, 33-42, 35-40, or 35-42. The peptide immunogen further comprises at least one additional copy of the Abeta fragment. It further comprises at least one additional copy of the N-terminal fragment of Abeta. The peptide immunogen comprises from N-terminus to C-terminus, and additional copies of the N-terminal fragment of Abeta. The peptide immunogen is (Abeta1-7)3 or (Abeta1-7)5. It further comprises at least one additional copy of a different Abeta fragment. The Abeta peptide immunogen is a fragment of Abeta selected from Abeta7-11, 17-28, 1-28, 25-35, 35-40, or 35-42. It is linked at its C-terminus to the N-terminus of a carrier molecule to form a heterologous peptide. Alternatively, it is also linked at its N-terminus to the C-terminus of a carrier molecule to form a heterologous peptide. The peptide immunogen comprises from N-terminus to C-terminus, a first

carrier molecule linked at its C-terminus to the N-terminus of the Abeta fragment linked at its C-terminus to the N-terminus of a second carrier molecule to form a heterologous peptide. The method further comprises at least one additional copy of the carrier molecule. It also comprises at least one copy of a different carrier molecule. The first carrier and the second carrier are the same carrier molecules or are different carrier molecules. The carrier molecule is selected from a T-cell epitope, a B-cell epitope, or its combinations. The peptide immunogen is further comprised of one or more molecules of the Abeta fragment that are linked together in a multiple antigenic peptide (MAP) configuration. Preferably, the peptide immunogen is Abeta1-7 and the MAP configuration is a MAP4 configuration. Specifically, the peptide immunogen is (Abeta1-7)3 and the MAP configuration is a MAP4 configuration, or (Abeta1-7)5 and the MAP configuration is a MAP4 configuration. The functional group of one or more amino acid molecules of the protein/polypeptide carrier or of the optionally attached polypeptide linker is derivatized using a cross-linking reagent. The derivatizing reagent is a zero-length cross-linking reagent, a homobifunctional cross-linking reagent, or a heterobifunctional cross-linking reagent. The protein/polypeptide carrier is reacted with a haloacetylating agent, where the heterobifunctional reagent is a reagent which reacts with a primary or an epsilon-amine functional group of one or more amino acid residues of the protein/polypeptide carrier and a pendant thiol group of one or more amino acid residues of the peptide immunogen. The heterobifunctional reagent is N-succinimidyl bromoacetate, N-succinimidyl-3-(2-pyridyl-thio) propionate (SPDP), or succinimidyl 4-(N-maleimidomehyl) cyclohexane-1-carboxylate (SMCC). The primary or epsilon-amine functional group is lysine. The pendant thiol group is a cysteine residue of the peptide immunogen. The cysteine residue is localized at the amino-terminus of the peptide immunogen, at carboxy-terminus of the peptide immunogen, or internally in the peptide immunogen. The pendant thiol group is generated by a thiolating reagent, where the thiolating reagent is N-acetyl homocysteinethio lactone. The capping reagent that is used to inactivate free reactive, functional groups on the activated protein/polypeptide carrier is selected from cysteamine, N-acetylcysteamine, or ethanolamine. It is also carrier is selected from sodium hydroxide, sodium carbonate, ammonium bicarbonate, or ammonia. The reactive group of the amino acid residue of the peptide immunogen is a free sulfhydryl group. One or more of the functional groups are on a linker, which is optionally attached to the protein/polypeptide carrier. The linker is a peptide linker, preferably polylysine. Alternatively, conjugating a peptide immunogen comprising Abeta peptide or fragments of Abeta or analogs to a protein/polypeptide carrier having the structure given in the specification, where C is a protein/polypeptide carrier and X is a derivatizable functional group of an amino acid residue of the protein/polypeptide carrier or optionally of an amino acid residue of a peptide linker covalently attached to the protein/polypeptide carrier, and where m is an integer greater than 0, but less than or equal to 85, comprises:

(A) derivatizing one or more of the functional groups of the protein/polypeptide carrier or of the optionally attached linker molecule to generate a derivatized molecule with reactive sites;

(B) reacting the derivatized protein/polypeptide carrier of (a) with a reactive group of an amino acid residue of the peptide immunogen comprising Abeta peptide or fragments of Abeta or analogs to form a covalently coupled peptide immunogen protein/polypeptide carrier conjugate; and

(C) further reacting the conjugate with a capping reagent to inactivate the free reactive functional groups on the activated protein/polypeptide carrier, so that the capped groups are not free to react with other

molecules, thus preserving the functionality of the carrier, so that it retains its ability to elicit the desired immune responses against the peptide immunogen that would otherwise not occur without a carrier, so as to generate a capped peptide immunogen-protein/polypeptide carrier conjugate having the formula given in the specification, where C is the protein/polypeptide carrier and Xd is a derivatized functional group of an amino acid residue of the protein/polypeptide carrier or optionally of an amino acid residue of a peptide linker covalently attached to the protein/polypeptide carrier, P is a peptide immunogen molecule comprising Abeta peptide or fragments of Abeta or analogs covalently attached to the derivatized functional group of the amino acid residue of the protein carrier or optionally of an amino acid residue of a peptide linker covalently attached to a protein/polypeptide carrier, R is a capping molecule covalently attached to the derivatized functional group of an amino acid residue of the protein/polypeptide carrier or optionally of an amino acid residue of a peptide linker covalently attached to a protein/polypeptide carrier, n is an integer greater than 0, but less than or equal to 85, and p is an integer greater than 0, but less than 85. Inducing an immune response in a mammalian subject comprises administering an amount of the immunogenic composition above to the subject.

Preferred Immunogenic Composition: In the immunogenic composition above, the adjuvants are selected from GM-CSF, 529 SE, IL-12, aluminum phosphate, aluminum hydroxide, M. tuberculosis, Bordetella pertussis, bacterial lipopolysaccharides, aminoalkyl glucosamine phosphate compounds, MPLTM (3-O-deacylated monophosphoryl lipid A), a polypeptide, Quil A, STIMULON QS-21, a pertussis toxin (PT), an Escherichia coli heat-labile toxin (LT), IL-1 alpha, IL-1beta, IL-2, IL-4, IL-5, IL-6, IL-7, IL-8, IL-10, IL-13, IL-14, IL-15, IL-16, IL-17, IL-18, interferon-alpha, interferon-beta, interferon-gamma, G-CSF, TNF-alpha, or TNF-beta. Preferably, the peptide immunogen is Abeta, the carrier is CRM197, and the adjuvant is 529 SE.

L59 ANSWER 29 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2005-488538 [200549] WPIX
DOC. NO. CPI: C2005-148866 [200549]
TITLE: Conjugating peptide immunogen, by derivatizing functional groups of protein or polypeptide carrier, reacting reactive group of amino acid residue of peptide immunogen with carrier having functional groups, to produce conjugate
DERWENT CLASS: B04; D16
INVENTOR: ARUMUGHAM R; ARUMUGHAM R G; PRASAD A K; PRASAD K; PRASAD K A; KRISHNA P A; RASAPPA A G
PATENT ASSIGNEE: (AMHP-C) WYETH; (ARUM-I) ARUMUGHAM R G; (PRAS-I) PRASAD A K; (AMHP-C) WYETH CORP
COUNTRY COUNT: 108

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2005058940	A2	20050630	(200549)*	EN	155[10]	
EP 1701968	A2	20060920	(200662)	EN		
NO 2006002687	A	20060915	(200668)	NO		
AU 2004299501	A1	20050630	(200707)	EN		
BR 2004017744	A	20070410	(200729)	PT		
US 20070134762	A1	20070614	(200741)	EN		
MX 2006006822	A1	20061201	(200743)	ES		
KR 2007027502	A	20070309	(200755)	KO		
CN 1984676	A	20070620	(200774)	ZH		

IN 2006DN03139	A	20070824	(200780)	EN	
JP 2008505052	T	20080221	(200816)	JA	109
ZA 2006004957	A	20080130	(200816)	EN	163
SG 149013	A1	20090129	(200920)	EN	
TW 2005033681	A	20051016	(200956)	ZH	
NZ 548352	A	20090925	(200971)	EN	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005058940 A2		WO 2004-US42701	20041217
US 20070134762 A1	Provisional	US 2003-530480P	20031217
AU 2004299501 A1		AU 2004-299501	20041217
BR 2004017744 A		BR 2004-17744	20041217
CN 1984676 A		CN 2004-80037802	20041217
EP 1701968 A2		EP 2004-814839	20041217
TW 2005033681 A		TW 2004-139525	20041217
EP 1701968 A2		WO 2004-US42701	20041217
NO 2006002687 A		WO 2004-US42701	20041217
BR 2004017744 A		WO 2004-US42701	20041217
US 20070134762 A1		WO 2004-US42701	20041217
MX 2006006822 A1		WO 2004-US42701	20041217
KR 2007027502 A		WO 2004-US42701	20041217
CN 1984676 A		WO 2004-US42701	20041217
IN 2006DN03139 A		WO 2004-US42701	20041217
JP 2008505052 T		WO 2004-US42701	20041217
JP 2008505052 T		JP 2006-545540	20041217
ZA 2006004957 A		ZA 2006-4957	20041217
IN 2006DN03139 A		IN 2006-DN3139	20060601
NO 2006002687 A		NO 2006-2687	20060609
MX 2006006822 A1		MX 2006-6822	20060615
KR 2007027502 A		KR 2006-714273	20060714
US 20070134762 A1		US 2007-583464	20070116
SG 149013 A1		SG 2008-9163	20041217
NZ 548352 A		NZ 2004-548352	20041217
NZ 548352 A PCT Application		WO 2004-US42701	20041217

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1701968 A2	Based on	WO 2005058940 A
AU 2004299501 A1	Based on	WO 2005058940 A
BR 2004017744 A	Based on	WO 2005058940 A
MX 2006006822 A1	Based on	WO 2005058940 A
KR 2007027502 A	Based on	WO 2005058940 A
CN 1984676 A	Based on	WO 2005058940 A
JP 2008505052 T	Based on	WO 2005058940 A
NZ 548352 A	Based on	WO 2005058940 A

PRIORITY APPLN. INFO: US 2003-530480P 20031217
US 2007-583464 20070116
US 2003-530480 20031217

NOV NOVELTY - Conjugating (M1) peptide immunogen through reactive group of amino acid residue of peptide immunogen to protein/polypeptide carrier (PC) having functional groups, by derivatizing functional groups of PC, reacting derivatized PC with peptide immunogen to produce conjugate, reacting conjugate with capping reagent to inactive free, reactive unreacted functional groups, so that conjugate elicits immune

responses against peptide immunogen, is new.

DETD DETAILED DESCRIPTION - Conjugating (M1) a peptide immunogen through a reactive group of an amino acid residue of the peptide immunogen to a protein/polypeptide carrier having one or more functional groups, involves derivatizing one or more of the functional groups of the protein/polypeptide carrier or optionally to a polypeptide linker attached to the protein/polypeptide carrier to generate a derivatized carrier with reactive sites, reacting the derivatized protein/polypeptide carrier with a reactive group of an amino acid of the peptide immunogen under reaction conditions such that the peptide immunogen is conjugated to the derivatized protein/polypeptide carrier through the functional groups, and further reacting the conjugate with a capping reagent to inactive free, reactive unreacted functional groups on the derivatized protein/polypeptide carrier, thus preserving the functionality of the carrier, such that it retains its ability to elicit the desired immune responses against the peptide immunogen that would otherwise not occur without a carrier.

INDEPENDENT CLAIMS are also included for:

(1) conjugating (M2) a peptide immunogen to a protein/polypeptide carrier having the structure (F1), involves derivatizing one or more of the functional groups of the protein/polypeptide carrier or of the optionally attached linker molecule to generate a derivatized molecule with reactive sites, reacting the derivatized protein/polypeptide carrier with a reactive group of an amino acid residue of the peptide immunogen to form a covalently coupled peptide immunogen- protein/polypeptide carrier conjugate, and further reacting the conjugate with a capping reagent to inactivate the free reactive functional groups on the activated protein/polypeptide carrier, such that the capped groups are not free to react with other molecules, thus preserving the functionality of the carrier, such that it retains its ability to elicit the desired immune responses against the peptide immunogen that would otherwise not occur without a carrier, so as to generate a capped peptide immunogen-protein/polypeptide carrier conjugate having the formula (F2);

(2) a peptide immunogen-protein/polypeptide carrier conjugate (I), where the protein/polypeptide carrier and immunogen-protein/polypeptide carrier conjugate has the formula (F1) and (F2);

(3) a peptide immunogen-protein/polypeptide carrier conjugate generated by (M2);

(4) an immunogenic composition (C1), comprising a conjugate of a peptide immunogen with a protein/polypeptide carrier generated by (M2).

C = protein/polypeptide carrier;

X = derivatizable functional group of an amino acid residue of the protein/polypeptide carrier or optionally of an amino acid residue of a peptide linker covalently attached to the protein/polypeptide carrier;

m = integer greater than 0, but less than or equal to 85;

Xd = derivatized functional group of an amino acid residue of the protein/polypeptide carrier or optionally of an amino acid residue of a peptide linker covalently attached to the protein/polypeptide carrier;

P = peptide immunogen molecule covalently attached to the derivatized functional group of the amino acid residue of the protein carrier or optionally of an amino acid residue of a peptide linker covalently attached to a protein/polypeptide carrier;

R = capping molecule covalently attached to the derivatized functional group of an amino acid residue of the protein/polypeptide carrier or optionally of an amino acid residue of a peptide linker covalently attached to a protein/polypeptide carrier;

n = integer greater than 0, but less than or equal to 85;and

p = integer greater than 0, but less than 85.

USE

USE - (M1) is useful for conjugating a peptide immunogen through a

reactive group of an amino acid residue of the peptide immunogen to a protein/polypeptide carrier having one or more functional groups. The peptide immunogen is chosen from bacterial protein, viral protein, and eukaryotic protein. The peptide immunogen is derived from a protein antigen from a bacterium. The bacterium is chosen from S.pneumoniae, S.aureus, S.epidermidis, Neisseria meningitidis, N.gonorrheae, H. influenzae, Esherichia coli, Klebsiella pneumoniae, Listeria monocytogenes, Vibrio cholerae, Clostridium perfringens, Clostridium botulinum, Pseudomonas aerations, Salmonella typhimurium, Borrelia burgdorferi, S.flexneri, S. boydii, S.dysentriae, Alloiococcus otitidis and Group B streptococci. The peptide immunogen is derived from a protein antigen from a virus. The virus is chosen from human immunodeficiency virus (HIV), herpes simplex virus (HSV), human papilloma virus (HPV), parainfluenza virus (PIV), vesicular stomatitis virus (VSV), respiratory syncytial virus (RSV), Epstein-Barr virus (EBV), coronavirus, vaccinia virus, rotavirus, rabies virus, hepatitis C virus (HCV) and hepatitis B virus (HBV). The peptide immunogen is derived from a protein antigen from a fungus. The fungus is chosen from Candida albicans, Cryptococcus neoformans, Coccidioides sp., Histoplasma sp., and Aspergillus sp.. The peptide immunogen is derived from a protein antigen from a parasite. The parasite is chosen from a Plasmodium, a Trypanosome, a Schistosome, and a Leishmania. The peptide immunogen is derived from a protein antigen from a eukaryote. The eukaryote is a human. The peptide immunogen from the human is derived from a malignant tumor. The tumor antigen is chosen from a renal cell carcinoma antigen, a breast carcinoma antigen, a carcinoembryonic antigen, a melanoma (MAGE) antigen, and a prostate cancer specific antigen. The peptide immunogen is from a human Abeta polypeptide. (C1) is useful for inducing an immune response against above pathogens, in a mammalian subject (all claimed), and Alzheimer's disease and cancer.

TECH

BIOTECHNOLOGY - Preferred Method: In (M1), the carrier is chosen from human serum albumin, keyhole limpet hemocyanin (KLH), and immunoglobulin molecules, thyroglobulin, ovalbumin, influenza hemagglutinin, PADRE polypeptide, malaria circumsporozite (CS) protein, hepatitis B surface antigen (HBSAgi9.23), heat Shock Protein (HSP) 65, Mycobacterium tuberculosis, cholera toxin, cholera toxin mutants with reduced toxicity, diphtheria toxin, CRM(197) protein that is cross-reactive with diphtheria toxin, recombinant Streptococcal C5a peptidase, Streptococcus pyogenes ORF1224, S.pyogenes ORF1664, S. pyogenes ORF2452, Chlamydia pneumoniae ORF T367, C.pneumoniae ORF T858, Tetanus toxoid, HIV gp120 T1, components recognizing microbial surface adhesive matrix molecules (MSCRAMMS), growth factors, hormones, cytokines and chemokines. The carrier contains a T-cell epitope. The carrier is a bacterial toxoid, influenza hemagglutinin, PADRE polypeptide, malaria circumsporozite (CS) protein, and hepatitis B surface antigen, heat shock protein 65 (HSP 65), a polypeptide from Mycobacterium tuberculosis (BCG), tetanus toxoid. The bacterial toxoid is CRM 197. The carrier is recombinant Streptococcal C5a peptidase, S.pyogenes ORF 1224, S.pyogenes ORF 1664, S.pyogenes ORF 2452, C.pneumoniae ORF T367. The carrier is C.pneumoniae ORF T858. The carrier is a growth factor or hormone, which stimulates or enhances immune response. The growth factor or hormone is chosen from IL-1, IL-2, y-interferon, IL-10, GM-CSF, macrophage inflammatory protein (MIP)-lalpha, MIP-lbeta and regulated upon activation, normal T-cell expressed and secreted (RANTES). The peptide immunogen is chosen from bacterial protein, viral protein, and eukaryotic protein. The peptide immunogen is derived from a protein antigen from a bacterium. The peptide immunogen is derived from a protein antigen from a eukaryote. The eukaryote is a human. The peptide immunogen from the human is derived from a malignant tumor. The tumor antigen is chosen from a renal cell carcinoma antigen, a breast carcinoma

antigen, a carcinoembryonic antigen, a melanoma (MAGE) antigen, and a prostate cancer specific antigen. The peptide immunogen is from a human Abeta polypeptide, and is derived from the N-terminal region of Abeta polypeptide. The peptide immunogen is derived from the C-terminal region of Abeta polypeptide. The peptide immunogen is derived from the internal region of Abeta polypeptide. The Abeta peptide immunogen is a fragment of Abeta chosen from Abeta 1-5, 1-6, 1-7, 1-10, 1-12, 3-7, 1-3, and 1-4. The Abeta peptide immunogen is a fragment of Abeta chosen from Abeta 7-11, 3-28, 16-22, 16-23, 17-23,17-24,18-24, 18-25, 17-28, 17-28, 1-28,25-35, 35-40 and 35-42. The fragments of Abeta peptide immunogen are fused to another peptide immunogen. The one molecule of an Abeta peptide immunogen is fused at its C-terminus to the N-terminus of a molecule of the same Abeta peptide immunogen. The molecule of an Abeta peptide immunogen is fused at its C-terminus to the C-terminus of another molecule of the same Abeta peptide immunogen. The molecule of an Abeta peptide immunogen is fused at its C-terminus to the C-terminus of a different molecule of an Abeta peptide immunogen. The one molecule of an Abeta peptide immunogen, is fused at its N-terminus to the C-terminus of a molecule of a different beta peptide immunogen. The Abeta peptide immunogen is derived from the N-terminal region of beta polypeptide, and is chosen from Abeta 1-5, 1-6, 1-7, 1-10, 1-12, 3-7,1-3, and 1-4. The Abeta peptide immunogen is a fragment of Abeta chosen from Abeta 7-11, 3-28, 16-22, 16-23, 17-23,17-24,18-24, 18-25,17-28,17-28, 1-28,25-35, 35-40 and 35-42. The molecules of an Abeta 3 peptide immunogen are linked to one or more molecules of a heterologous peptide. The Abeta peptide immunogen is derived from the N-terminal region of Abeta polypeptide, and is chosen from Abeta 1-5,1-6, 1-7, 1-10, 1-12, 3-7, 1-3, and 1-4. The Abeta peptide immunogen is a fragment of Abeta chosen from beta 7-11, 3-28,16-22, 16-23, 17-23,17-24, 18-24, 18-25, 17-28,17-28, 1-28, 25-35, 35-40 and 35-42. The heterologous peptide is chosen from a T-cell epitope, a B-cell epitope and their combinations. The molecules of Abeta peptide immunogen are linked together in a multiple antigenic peptide (MAP) configuration. The molecules of Abeta peptide immunogen are linked together with one or more molecules of a different Abeta peptide immunogen in a multiple antigenic peptide (MAP) configuration. The Abeta peptide immunogen is derived from the N-terminal region of Abeta polypeptide, and is chosen from Apl-5, 1-6,1-7,1-10, 1-12, 3-7, 1-3, and 1-4. The Abeta peptide immunogen is a fragment of Abeta chosen from Abeta 7-11, 3-28,16-22, 16-23, 17-23, 17-24,18-24, 18-25,17-28, 17-28, 1-28, 25-35, 35-40 and 35-42. The functional group of one or more amino acid molecules of the protein/polypeptide carrier or of the optionally attached polypeptide linker is derivatized using a cross-linking reagent. The derivatizing reagent is a zero- length cross-linking reagent. The derivatizing reagent is a homobifunctional cross-linking reagent. The derivatizing reagent is a heterobifunctional cross-linking reagent. The protein/polypeptide carrier is reacted with a haloacetylating agent. The heterobifunctional reagent is a reagent which reacts with a primary or an epsilon-amine functional group of one or more amino acid residues of the protein/polypeptide carrier and a pendant thiol group of one or more amino acid residues of the peptide immunogen. The heterobifunctional reagent is chosen from N-succinimdyl bromoacetate, N-succinimidyl-3-(2-pyridyl-thio) propionate (SPDP), and succinimidyl 4-(N-maleimidomet+hyl) cyclohexane-1- carboxylate (SMCC). The primary or epsilon-amine functional group is lysine. The pendant thiol group is a cysteine residue of the peptide immunogen. The cysteine residue is localized at the amino-terminus of the peptide immunogen. The cysteine residue is localized at carboxy-terminus of the peptide immunogen. The cysteine residue is localized internally in the peptide immunogen. The pendant thiol group is generated by a thiolating reagent. The thiolating reagent is N-acetyl homocysteinethio lactone. The capping reagent that is used to

inactivate tree reactive, functional groups on the activated protein/polypeptide carrier is chosen from the reagent group such as cysteamine, N-acetylcysteamine, and ethanolamine. The capping reagent that is used to inactivate free reactive, functional groups on the activated protein/polypeptide carrier is chosen from sodium hydroxide, sodium carbonate, ammonium bicarbonate and ammonia. The reactive group of the amino acid residue of the peptide immunogen is a free sulfhydryl group. The functional groups are on a linker, which is optionally attached to the protein/polypeptide carrier. The linker is a peptide linker. The peptide linker is polylysine.

L59 ANSWER 30 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2005-031596 [200503] WPIX
DOC. NO. CPI: C2005-010049 [200503]
TITLE: Mammalian cells laden with bacteria, useful for treatment and prophylaxis of e.g. tumors and chronic inflammation, function as carriers for therapeutic nucleic acid
DERWENT CLASS: B04; D16
INVENTOR: FENSTERLE J; GENTSCHEV I; GOEBEL W; POTAPENKO T; RAPP U; RAPP U R; SCHMIDT A; STRITZKER J; STRIZKER J
PATENT ASSIGNEE: (MEDI-N) MEDINNOVA GES INNOVATIONEN AUS AKAD; (MEDI-N) MEDINNOVA GES MEDIZINISCHE INNOVATIONEN; (ZETR-C) ZENTARIS GMBH
COUNTRY COUNT: 107

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2004108155	A1	20041216	(200503)*	DE	39[4]	
DE 10326187	A1	20050105	(200503)	DE		
EP 1631310	A1	20060308	(200618)	DE		
NO 2006000095	A	20060303	(200621)	NO		
DE 112004001497	T	20060427	(200629)	DE		
IN 2005MN01351	A	20090731	(200644)	EN		
BR 2004011210	A	20060718	(200649)	PT		
AU 2004244701	A1	20041216	(200654)	EN		
ZA 2005009476	A	20060830	(200662)	EN	34	
US 20060240038	A1	20061026	(200671)	EN		
CN 1802175	A	20060712	(200675)	ZH		
JP 2006526396	T	20061124	(200677)	JA	22	
MX 2005013195	A1	20060801	(200701)	ES		
KR 2006090164	A	20060810	(200705)	KO		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004108155	A1	WO 2004-DE1178	20040607
DE 10326187	A1	DE 2003-10326187	20030606
AU 2004244701	A1	AU 2004-244701	20040607
BR 2004011210	A	BR 2004-11210	20040607
CN 1802175	A	CN 2004-80015761	20040607
DE 112004001497	T	DE 2004-112004001497	20040607
EP 1631310	A1	EP 2004-738631	20040607
EP 1631310	A1	WO 2004-DE1178	20040607
DE 112004001497	T	WO 2004-DE1178	20040607
BR 2004011210	A	WO 2004-DE1178	20040607
US 20060240038	A1	WO 2004-DE1178	20040607
JP 2006526396	T	WO 2004-DE1178	20040607

MX 2005013195 A1	WO 2004-DE1178 20040607
KR 2006090164 A	WO 2004-DE1178 20040607
ZA 2005009476 A	ZA 2005-9476 20051123
KR 2006090164 A	KR 2005-723452 20051206
MX 2005013195 A1	MX 2005-13195 20051206
JP 2006526396 T	JP 2006-508123 20040607
NO 2006000095 A	NO 2006-95 20060106
US 20060240038 A1	US 2006-559663 20060621
IN 2005MN01351 A PCT Application	WO 2004-DE1178 20040607
IN 2005MN01351 A	IN 2005-MN1351 20051202

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1631310 A1	Based on	WO 2004108155 A
DE 112004001497 T	Based on	WO 2004108155 A
BR 2004011210 A	Based on	WO 2004108155 A
AU 2004244701 A1	Based on	WO 2004108155 A
JP 2006526396 T	Based on	WO 2004108155 A
MX 2005013195 A1	Based on	WO 2004108155 A
KR 2006090164 A	Based on	WO 2004108155 A

PRIORITY APPLN. INFO: DE 2003-10326187 20030606

ADV ADVANTAGE - Target localization of (B) is improved by loading them into (A), i.e. after intravenous injection of (A), a higher proportion of (B) reaches the target compared with injection of free (B). Bacterial components may also improve the local immune response.

TECH

BIOLOGY - Preferred Materials: (A) are inactivated, e.g. by irradiation. (B) are live, non-virulent or have had their virulence attenuated. Over 20 suitable species are listed, e.g. Mycobacterium tuberculosis; Legionella pneumophila; Salmonella typhi; Pasteurella haemolytica; Listeria monocytogenes or Chlamydia trachomatis. Most preferred are Listeria and Salmonella, especially cells that have a defect in a metabolic enzyme, particularly in the aroA gene required for biosynthesis of aromatic amino acids; retain expression of proteins required for motility; and lack the chromosomal trpS gene (encoding tryptophanyl-tRNA synthase), which is complemented by a plasmid. They may also be altered to stabilize replication and to express an endolysin so that (B) undergo lysis in the cytosol of (A), releasing enclosed plasmids and ensuring stable expression of active agents encoded by these plasmids. (B) can include DNA that encodes at least one active agent (I), where (I) may be expressed by the bacterium itself or under control of a eukaryotic promoter. (I) may be produced intracellularly, on the cell membrane or as a secreted protein. Typical of many specified (I) are antigens (from viruses, bacteria, mycoplasma, parasites or tumor cells); antibodies or their fragments; enzymes (e.g. for conversion of prodrugs); cytokines, chemokines, interferons or growth factors (or inhibitory proteins of the last four). Where dendritic cells or macrophages are used, they may also function as carriers for an inoculating antigen, preferably loaded into the cells ex vivo, and particularly peptides. Optionally (A) are fused with other cells that express a tissue or tumor antigen, preferably autologous tumor cells.

L59 ANSWER 31 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2005-038743 [200504] WPIX
CROSS REFERENCE: 1997-489246; 1999-095474; 2003-074978
DOC. NO. CPI: C2005-012876 [200504]
TITLE: Stimulating a systemic immune response to an antigen

comprises providing a liposomal preparation comprising lyophilized liposomes containing the antigen
DERWENT CLASS: B04; D16
INVENTOR: SEE D M; SEE J R
PATENT ASSIGNEE: (ORAL-N) ORAL VACCINE TECHNOLOGIES INC
COUNTRY COUNT: 1

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20040258746	A1	20041223	(200504)*	EN	21[15]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20040258746	A1 CIP of	WO 1997-US4634	19970324
US 20040258746	A1 CIP of	US 1997-882968	19970626
US 20040258746	A1 CIP of	US 1997-948568	19971010
US 20040258746	A1 CIP of	US 1998-7297	19980114
US 20040258746	A1 Div Ex	US 1999-358962	19990722
US 20040258746	A1 Cont of	US 2000-706083	20001103
US 20040258746	A1 Cont of	US 2002-57484	20020125
US 20040258746	A1	US 2004-821691	20040408

FILING DETAILS:

PATENT NO	KIND	PATENT NO
US 20040258746	A1 CIP of	US 6117449 A
US 20040258746	A1 CIP of	US 6207185 B

PRIORITY APPLN. INFO: US 2004-821691 20040408
WO 1997-US4634 19970324
US 1997-882968 19970626
US 1997-948568 19971010
US 1998-7297 19980114
US 1999-358962 19990722
US 2000-706083 20001103
US 2002-57484 20020125

TI Stimulating a systemic immune response to an antigen comprises providing a liposomal preparation comprising lyophilized liposomes containing the antigen

TT TT: STIMULATING SYSTEMIC IMMUNE RESPOND ANTIGEN COMPRISE LIPOSOME PREPARATION LYOPHILISE CONTAIN

NOV NOVELTY - Stimulating a systemic immune response to an antigen in a mammal comprises providing a liposomal preparation comprising lyophilized liposomes containing at least one antigen.

DETD DETAILED DESCRIPTION - Stimulating a systemic immune response to an antigen in a mammal comprises:

(a) providing a liposomal preparation comprising lyophilized liposomes containing at least one antigen, where the liposomes have at least two sizes, before lyophilization, e.g. small liposomes of 20 nm to 1 micron, medium liposomes of 1-3 microns, or large liposomes of 3-20 microns; and

(b) orally administering an amount of the liposomal preparation to a mammal, where antigen containing liposomes are absorbed in the Peyer's patches of the gut of the mammal and are taken up by macrophages in the Peyer's patches to stimulate a systemic immune response.

USE

USE - The method is useful for stimulating a systemic immune response to an antigen in a mammal.

TECH

BIOTECHNOLOGY - Preferred Method: The liposomes are multi-lamellar before lyophilization. The liposomal preparation is contained with an enterically-coated capsule. The liposomal preparation comprises (i) at least 5% by volume small liposomes, at least 10% by volume medium liposomes and at least 20% by volume large liposomes, or (ii) 10% by volume small liposomes, 25% by volume medium liposomes and 65% by volume large liposomes. The liposomes comprise at least two different antigens. The liposomes comprise at least one antigen, e.g. inactivated HIV I, HIV II, Hepatitis B or C antigens. The liposomes comprise at least one antigen, e.g. polio 1 to 3, hepatitis A through N, coxsackie B1-B6, mumps, measles, rubella, respiratory syncytial virus, parainfluenza 1-4, influenza A to C, adenovirus, Mycoplasma pneumonia, Streptococcus pneumonia, Chlamydia trachomatis, Pneumoniae, Psittacocci, Hemophilus influenza, Meningococcus, Malaria, Leishmania, Brucella, Trypanosoma brucei strains, Mycobacterium tuberculosis, Pseudomonas, Escherichia coli Salmonella, Trypanosoma cruzi, yellow fever virus, or Vibrio cholerae. The antigen containing liposomes are capable of being absorbed in the Peyer's patches of the gut of the mammal and are capable of being taken up by macrophages in the Peyer's patches to stimulate a systemic immune response without the presence of an adjuvant or without generating a typical adjuvant effect. The liposomal preparation is prepared by:

(i) preparing liposomes containing the at least one antigen, and reducing the size of a portion of the liposomes to produce liposomes having a size, e.g. small and medium liposome, where a remainder of the liposomes are not altered so that the remainder of the liposomes has a size, e.g. medium and large liposomes, where the size of the remainder liposomes is different from the reduced size of the portion of liposomes; or by

(ii) preparing liposomes containing the at least one antigen, reducing the size of a first portion of the liposomes to produce small liposomes, and reducing the size of a second portion of the liposomes to produce medium liposomes.

The portion of the liposomes is altered to produce small liposomes, where the remainder of the liposomes that are not altered are all medium or all large liposomes. The portion of the liposomes are altered to produce medium liposomes, where the remainder of the liposomes that are not altered are all large liposomes. The size of the portion of the liposome is reduced by sonication, by extrusion through a filter, or by microfluidization.

L59 ANSWER 32 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN

ACCESSION NUMBER: 2003-300556 [200329] WPIX

DOC. NO. CPI: C2003-078253 [200329]

TITLE: New immunogenic composition comprising an immunogen, a first adjuvant functioning as a directing molecule, and a second adjuvant functioning as a stimulant, useful as a vaccine and for inducing the production of antibodies

DERWENT CLASS: B04; D16

INVENTOR: CAMPBELL R; CAMPBELL R L; MIKSZTA J A; ROBERT L C

PATENT ASSIGNEE: (BECT-C) BECTON DICKINSON & CO; (CAMP-I) CAMPBELL R L; (MIKS-I) MIKSZTA J A

COUNTRY COUNT: 100

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC

WO 2003015694	A2	20030227	(200329)*	EN	27[7]
US 20030138434	A1	20030724	(200352)	EN	
AU 2002355945	A1	20030303	(200452)	EN	
EP 1461074	A2	20040929	(200463)	EN	
JP 2004538330	T	20041224	(200502)	JA	91
MX 2004001224	A1	20040601	(200504)	ES	
US 20050152873	A1	20050714	(200547)	EN	
CN 1604792	A	20050406	(200553)	ZH	
IN 2004CN00291	A	20051209	(200604)	EN	
BR 2002011926	A	20061212	(200701)	PT	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003015694	A2	WO 2002-US25511	20020812
US 20030138434	A1 Provisional	US 2001-311387P	20010813
US 20050152873	A1 Provisional	US 2001-311387P	20010813
IN 2004CN00291	A	WO 2002-US25511	
US 20030138434	A1	US 2002-142966	20020513
US 20050152873	A1 Div Ex	US 2002-142966	20020513
AU 2002355945	A1	AU 2002-355945	20020812
CN 1604792	A	CN 2002-820220	20020812
EP 1461074	A2	EP 2002-752793	20020812
EP 1461074	A2	WO 2002-US25511	20020812
JP 2004538330	T	WO 2002-US25511	20020812
MX 2004001224	A1	WO 2002-US25511	20020812
JP 2004538330	T	JP 2003-520455	20020812
MX 2004001224	A1	MX 2004-1224	20040209
IN 2004CN00291	A	IN 2004-CN291	20040212
US 20050152873	A1	US 2004-2678	20041203
BR 2002011926	A	BR 2002-11926	20020812
BR 2002011926	A	WO 2002-US25511	20020812

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2002355945 A1	Based on	WO 2003015694 A
EP 1461074 A2	Based on	WO 2003015694 A
JP 2004538330 T	Based on	WO 2003015694 A
MX 2004001224 A1	Based on	WO 2003015694 A
BR 2002011926 A	Based on	WO 2003015694 A

PRIORITY APPLN. INFO: US 2002-142966 20020513
US 2001-311387P 20010813
US 2004-2678 20041203

DETD DETAILED DESCRIPTION - An immunogenic composition comprising an immunogen, a first adjuvant functioning as a directing molecule, and a second adjuvant functioning as a stimulant. The first and second adjuvants are chemically distinct molecules. The immunogen and adjuvants are present in amounts sufficient to result in an improved immune response relative to that resulting from the immunogen and just one of the first or second adjuvants.

AN INDEPENDENT CLAIM is also included for inducing an immune response by administering an immunogenic composition defined above, to a subject at a desired site.

TECH BIOTECHNOLOGY - Preferred Composition: The stimulant is a weak stimulant.

The stimulant is saponin or their derivative including a saponin component, and is preferably synthetic. The stimulant may also be a CpG DNA, nucleic acid, cytokine, or chemokine. The stimulant is selected from GM-CSF, IL-1-beta, IL-2, IL-4, IL-7, IL-12, monophosphoryl lipid A, 3-Q-desacyl-4'-monophosphoryl lipid A, IL- 1 beta 163-171 peptide (Sclavo Peptide), 25-dihydroxyvitamin D3, calcitinin-gene regulated peptides, Dehydroepiandrosterone (DHEA), N-Acetylglucosaminyl-(P1-4)-N-acetylmuramyl-L-alanyl-D-glutamine (GMDP), dimethyl dioctadecyla or disteary ammonium bromide (DDA)/Zinc L-proline, muramyl dipeptide (MDP), formylated-Met-Leu-Phe (fMLP), N-acetyl myramyl-L-threonyl-D-isoglutamine (Threonyl-MDP), N-acetyl-L-alanyl-D-isoglytaminyl-L-alanine-2-(1,2-dipalmitoyl-sn-glycero-3-(hydroxy-phosphoryloxy)ethylamide monosodium salt (MTP-PE), Nac-Mur-L-Ala-D-Gln-OCH3, Nac-Mur-L-Thr-D-isoGln-sn-glycerol dipalmi toyl, Nac-Mur-D-Ala-D-isoGln-sn-glycerol dipalmitoyl, 1-(2-methyropyl)-IH-Imidazol(4,5-c)quinolin-4-amine, 4-Amino-otec-dimethyl-2.ethoxymethyl-1H-imidazo(4,5-c)quinoline-1-ethanol, N-acetylglucosaminyl-N-acetylmuramyl-L-Ala-D-isoGlu-G-Ala-glycerol dipalmitate (DTP-GDP), N-acetylglycosaminyl-N-acetylinuramyl-L-Ala-D-isoGllu-L-Ala-dipalmitoxy propylamide (DTP-DPP), gamma interferon, 7-allyl-8-oxoguanosine, poly-adenylic acid-polyuridylic acid complex, MIP-1a, MIP-3a, dibutylphthalate, dibutyl phthalate analogues, and C5a. The composition is free from agents causing visible external toxic or allergic symptoms. The immunogen is antigen, which is an expression product of a nucleic acid, a whole cell, a protein, protein mixture, membrane extract, mammalian cells, virus or bacteria. The bacterium is Chlamydia, specifically C. trachomatis, C. pneumoniae or C. psitaaci. The Chlamydia is an elementary body and is inactivated. The directing molecule is alpha 2-macroglobulin (Alpha 2-M), a CD91 binding fragment of A2M, an antibody, or an immunogenic specific fragment, where the antibody or its fragment is specific for an antigen presenting cell (APC) receptor, possesses an epitope capable of binding to an APC receptor, or is not specific for the immunogen. The antibody complementarity determining regions (CDRs) may or may not be specific for the APC, immunogen or stimulant. The antibody is (non)specific for one stimulant. The directing molecule binds to transferrin, mannose, a sialoglycoproteins receptor or CD91. The directing molecule is a complement or heat shock protein or its fragment capable of binding to APC, is an opsonizing molecule, or comprises a molecule directly or indirectly linked to an APC receptor. The directing molecule and the immunogen form a complex. The immunogenic composition is a vaccine, and is frozen, lyophilized, freeze dried or otherwise reconstitutable. The composition is substantially liposome-free, or free of alum. The immunogenic composition further comprises at least one antibody or its fragment, which may or may not be specific for the immunogen.

Preferred Method: The immune response includes generating antibodies. The method further comprises recovering the antibody from the subject, where the antibody has Ka values of 104-1013 moles/liter. The stimulant contributes to APC migration or maturation, or attracts APC.

L59 ANSWER 33 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2002-643387 [200269] WPIX
TITLE: Modifying a bacterium to enhance immunogenicity, as vaccines for preventing bacterial infections, e.g. tuberculosis comprises reducing the activity of an anti-apoptotic enzyme, e.g. superoxide dismutase produced by the bacterium
DERWENT CLASS: B04; D16
INVENTOR: BOCHAN M R; KERNODLE D S
PATENT ASSIGNEE: (USGO-C) US DEPT VETERANS AFFAIRS; (BOCH-I) BOCHAN M R; (KERN-I) KERNODLE D S; (UVAN-C) UNIV VANDERBILT

COUNTRY COUNT: 98

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2002062298	A2	20020815	(200269)*	EN	164[25]	
EP 1361794	A2	20031119	(200377)	EN		
AU 2002240269	A1	20020819	(200427)	EN		
US 20040109875	A1	20040610	(200438)	EN		
ZA 2003006058	A	20040825	(200466)	EN	162	
JP 2005504502	T	20050217	(200513)	JA	263	
IN 2003DN01267	A	20050527	(200577)#	EN		
AU 2002240269	B2	20070621	(200765)	EN		
JP 4197614	B2	20081217	(200918)	JA	95	
IN 2010DN02057	A	20100820	(201064)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002062298	A2	WO 2002-US3451	20020207
AU 2002240269	A1	AU 2002-240269	20020207
AU 2002240269	B2	AU 2002-240269	20020207
EP 1361794	A2	EP 2002-706163	20020207
JP 2005504502	T	JP 2002-562306	20020207
JP 4197614	B2	JP 2002-562306	20020207
EP 1361794	A2 PCT Application	WO 2002-US3451	20020207
US 20040109875	A1 PCT Application	WO 2002-US3451	20020207
JP 2005504502	T PCT Application	WO 2002-US3451	20020207
JP 4197614	B2 PCT Application	WO 2002-US3451	20020207
ZA 2003006058	A	ZA 2003-6058	20030806
IN 2003DN01267	A	IN 2003-DN1267	20030811
US 20040109875	A1	US 2004-467644	20040120
IN 2010DN02057	A PCT Application	WO 2002-US3451	20020207
IN 2010DN02057	A Div Ex	IN 2003-DN1267	20030811
IN 2010DN02057	A	IN 2010-DN2057	20100323

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1361794	A2 Based on	WO 2002062298 A
AU 2002240269	A1 Based on	WO 2002062298 A
JP 2005504502	T Based on	WO 2002062298 A
AU 2002240269	B2 Based on	WO 2002062298 A
JP 4197614	B2 Previous Publ	JP 2005504502 T
JP 4197614	B2 Based on	WO 2002062298 A

PRIORITY APPLN. INFO: US 2001-322989P 20010918
US 2001-267328P 20010207
IN 2003-DN1267 20030811
US 2004-467644 20040120

DETD DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
(1) a modified bacterium (I) made by (M1);
(2) an immunogenic composition comprising (I);
(3) an attenuated intracellular bacterium, further modified to reduce the activity of an anti-apoptotic enzyme of the bacterium;
(4) modifying a bacterium (M2) so it retains or increases immunogenicity but loses or reduces pathogenicity in a subject, comprising

reducing but not eliminating an activity of an enzyme produced by the bacterium, where reducing the activity of the enzyme attenuates the bacterium;

(5) bacteria modified by (M2);

(6) a composition (II) comprising any of the bacterium, and a carrier;

(7) producing (M3) an immune response by an immune cell of the subject, comprising contacting the cell wall with (II) or administering (II) to the subject; and

(8) preventing (M4) an infectious disease in a subject, comprising administering to the subject (II).

TECH

BIOTECHNOLOGY - Preferred Method: In (M1) the bacterium is an intracellular bacterium selected from M. tuberculosis, M. bovis, M. bovis strain BCG, BCG substrains, M. avium, M. intracellulare, M. africanum, M. kansasii, M. marinum, M. ulcerans, M. avium subspecies paratuberculosis, Nocardia asteroids, other Nocardia species, Legionella pneumophila, other Legionella species, Salmonella typhi, other Salmonella species, Shigella species, Yersinia pestis, Pasteurella haemolytica, Pasteurella multocida, other Pasteurella species, Actinobacillus pleuropneumoniae, Listeria monocytogenes, Listeria ivanovii, Brucella abortus, other Brucella species, Chlamydia pneumoniae, Chlamydia trachomatis, Chlamydia psittaci and Coxiella burnetii. The bacterium is not Yersinia enterocolitica, but preferably a strain of M. tuberculosis, M. bovis. The bacterium can preferably be BCG. The enzyme is selected from iron-manganese superoxide dismutase, zinc-copper superoxide dismutase, thioredoxin, thioredoxin reductase, glutathione reductase (glutaredoxin), glutamine synthetase, other thioredoxin-like proteins, other thioredoxin reductase-like proteins, other glutaredoxin-like proteins, other thiol reductases and other protein disulfide oxidoreductases. The bacterium is Salmonella and the enzyme is not superoxide dismutase or glutamine synthetase, but a copper, zinc superoxide dismutase and the bacteria is not M. tuberculosis, L. pneumophila, A. pleuropneumoniaeor B. abortus. The enzyme activity is reduced but is still present. Reducing the activity of the anti-apoptotic enzyme comprises transforming the bacterium with an anti-sense nucleic acid that reduces the production of the anti-apoptotic enzyme. Modifying a bacterium that retains or increases immunogenicity but loses or reduces pathogenicity in a subject further comprises:

(a) identifying an enzyme that is essential for the full expression of in vivo survival of the bacterium;

(b) mutating a gene encoding the essential bacterial enzyme or obtaining from another species a homologous gene;

(c) replacing in the bacterium the gene encoding the essential bacterial enzyme with one or more of the mutated genes or homologous genes from (b), to reducing but not eliminate in the bacterium the activity of the essential enzyme identified in (a); and

(d) identifying an attenuated bacterium of (c) that survives to confer protective immunity in vivo.

The bacterium modified is already attenuated and virulent. This bacterium can be selected from M. tuberculosis, M. bovis, M. bovis strain BCG, BCG substrains, M. avium, M. intracellulare, M. africanum, M. kansasii, M. marinum, M. ulcerans, M. avium subspecies paratuberculosis, Nocardia asteroids, other Nocardia species, Legionella pneumophila, other Legionella species, Salmonella typhi, other Salmonella species, Shigella species, Yersinia pestis, Pasteurella haemolytica, Pasteurella multocida, other Pasteurella species, Actinobacillus pleuropneumoniae, Listeria monocytogenes, Listeria ivanovii, Brucella abortus, other Brucella species, Cowdria ruminatium, Chlamydia pneumoniae, Chlamydia trachomatis, Chlamydia psittaci, Coxiella burnetii, other Rickettsial species, Ehrlichia species, Staphylococcus aureus, Staphylococcus

epidermidis, Streptococcus pyogenes, Streptococcus agalactiae, Bacillus anthracis, Escherichia coli, Vibrio cholerae, Campylobacter species, Neiserria meningitidis, Neiserria gonorrhea, Pseudomonas aeruginosa, other Pseudomonas species, Haemophilus influenzae, Haemophilus ducreyi, other Hemophilus species, Yersinia enterolitica, and other Yersinia species. The enzyme is selected from iron-manganese superoxide dismutase, zinc-copper superoxide dismutase, thioredoxin, thioredoxin reductase, glutathione reductase (glutaredoxin), glutamine synthetase, other thioredoxin-like proteins, other thioredoxin reductase-like proteins, other glutaredoxin-like proteins, other thiol reductases, other protein disulfide oxidoreductases, catalase, urease, and clpC Atpase, enzymes involved in basic cell metabolism and respiration pathways, enzymes involved in the biosynthesis of amino acids, purines, nucleic acids, lipids, and iron-scavenging molecules, oxidoreductases, oxygenases, dehydrogenases, phospholipases, lipases, esterases and proteases. The activity of the enzyme is reduced by reducing the amount of the enzyme produced by the bacterium or the efficiency of the enzyme. The amount of enzyme produced by the bacterium is reduced by altering a promoter in the bacterium to decrease expression of a nucleic acid that encodes the enzyme, or by replacing codons in a naturally occurring nucleic acid that encodes the enzyme with codons that reduce the efficiency of translation of the nucleic acid. Furthermore, the efficiency of the enzyme is reduced by altering a naturally occurring nucleic acid that encodes the enzyme, comprising deleting, inserting and/or substituting codons in the naturally occurring nucleic acid, wherein the nucleic acid with the deletion, insertion or substitution encodes an enzyme with reduced efficiency. The efficiency of the enzyme can also be reduced by substituting from another bacterial species a nucleic acid that encodes a less efficient analog or homolog of the enzyme for a naturally occurring nucleic acid, thereby reducing the efficiency of the enzyme. The activity of the enzyme is reduced by altering a localization of the enzyme. The altering of the localization of the enzyme comprises altering a leader peptide. In preventing an infectious disease in a subject, the disease is bacterial, preferably tuberculosis. Preventing an infectious disease in a subject and producing an immune response by an immune cell of the subject preferably comprises human mammalian subject.

Preferred Bacterium: The attenuated intracellular bacterium also comprises the characteristics of the modified bacterium cited above. The bacterium further comprises an enzyme, preferably superoxide dismutase, thioredoxin or thioredoxin reductase. The activity of both thioredoxin and thioredoxin reductase has been reduced. The bacterium modified by (M2) is a mutant M. tuberculosis in which:

(a) glutamic acid is deleted at position 54 of superoxide dismutase;
(b) glycine is deleted at position 88 of superoxide dismutase;
(c) glycine is deleted at positions 87 and 88 of superoxide dismutase;
(d) glycine is deleted at position 134 of superoxide dismutase;
(e) proline is deleted at position 150 of superoxide dismutase;
(f) valine is deleted at position 184 of superoxide dismutase;
(g) lysine is substituted for histidine at position 28 of superoxide dismutase;
(h) lysine is substituted for histidine at position 76 of superoxide dismutase;
(i) lysine is substituted for histidine at position 145 of superoxide dismutase;
(j) lysine is substituted for histidine at position 164 of superoxide dismutase.

Any of the bacterium comprises a nucleic acid encoding a heterologous antigen.

L59 ANSWER 34 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN

ACCESSION NUMBER: 2002-444150 [200247] WPIX
DOC. NO. CPI: C2002-126453 [200247]
TITLE: Composition comprising microbe having attenuating mutation that comprises insertion sequence containing recombinant transcription terminator, useful as vaccine, and for delivering a desired gene product to individual
DERWENT CLASS: B04; C06; D16
INVENTOR: CURTISS R; TINGE A; TINGE S A
PATENT ASSIGNEE: (CURT-I) CURTISS R; (MEGA-N) MEGAN HEALTH INC; (TING-I) TINGE A; (TING-I) TINGE S A; (UNIW-C) UNIV WASHINGTON; (UYWA-N) UNIV WASHINGTON ST LOUIS
COUNTRY COUNT: 96

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2002030457	A2	20020418	(200247)*	EN	91[18]	
AU 2002011582	A	20020422	(200254)	EN		
EP 1326960	A2	20030716	(200347)	EN		
EP 1326960	B1	20041208	(200480)	EN		
DE 60107707	E	20050113	(200506)	DE		
DE 60107707	T2	20051208	(200580)	DE		
AU 2002211582	A8	20051006	(200612)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002030457	A2	WO 2001-US31606	20011011
DE 60107707	E	DE 2001-60107707	20011011
DE 60107707	T2	DE 2001-60107707	20011011
EP 1326960	A2	EP 2001-979646	20011011
EP 1326960	B1	EP 2001-979646	20011011
DE 60107707	E	EP 2001-979646	20011011
DE 60107707	T2	EP 2001-979646	20011011
EP 1326960	A2	WO 2001-US31606	20011011
EP 1326960	B1	WO 2001-US31606	20011011
DE 60107707	E	WO 2001-US31606	20011011
DE 60107707	T2	WO 2001-US31606	20011011
AU 2002011582	A	AU 2002-11582	20011011
AU 2002211582	A8	AU 2002-211582	20011011

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 60107707	E Based on	EP 1326960 A
DE 60107707	T2 Based on	EP 1326960 A
AU 2002011582	A Based on	WO 2002030457 A
EP 1326960	A2 Based on	WO 2002030457 A
EP 1326960	B1 Based on	WO 2002030457 A
DE 60107707	E Based on	WO 2002030457 A
DE 60107707	T2 Based on	WO 2002030457 A
AU 2002211582	A8 Based on	WO 2002030457 A

PRIORITY APPLN. INFO: US 2000-689123 20001012
USE
USE - (I) is useful as a vaccine, where the vaccine comprises a microbe having an attenuating mutation comprising an insertion sequence

containing a rTT in a chromosomal gene, and the insertion sequence does not contain a recombinant promoter. (I) comprising a microbe having an attenuating mutation as described above in a chromosomal gene, and a recombinant gene encoding the desired gene product, is useful for delivering the desired gene product to an individual. The insertion sequence containing a rTT does not include a recombinant promoter. (I) is also useful for immunizing an individual against a pathogen, where (I) comprises a derivative of a pathogenic microbe having an attenuating mutation comprising an insertion sequence containing a recombinant transcription terminator in a chromosomal gene. The microbe further comprises a deletion mutation in the coding region of the chromosomal gene, in the promoter region of the gene, or in both the coding and promoter region of the gene. The microbe further comprises a recombinant gene which encodes an epitope from the pathogen such as a virus, bacterium, protozoan, parasite or fungus (all claimed). (I) is useful as recombinant vaccine for the control of bubonic plague caused by Yersinia pestis, of gonorrhea caused by Neisseria gonorrhea, of syphilis caused by Treponema palladium, and of venereal diseases as well as eye infections caused by Chlamydia trachomatis.

TECH BIOTECHNOLOGY - Preferred Composition: (I) comprises a microbe (e.g., Salmonella, Shigella, Escherichia or their hybrid) having an attenuation mutation in a chromosomal gene such as pab gene, pur gene, aro gene, asd, dap gene, nadA, pncB, galE, pmi, fur, rpsL, ompR, htrA, hemA, cdt, cya, crp, phoP, phoQ, rfc, poxR, or galU, where the mutation comprises an insertion sequence containing a rTT such as rrnB 5s rRNA T1T2, trpA, T4gene32, T4ipIII gene, or rrfg5SrRNA. The rTT is preferably inserted in the phoP gene. The microbe further comprises a deletion mutation in the coding region of the gene, in the promoter region of the gene or in both the coding region and promoter region of the gene, and preferably consists of MGN-1362, chi8298 or chi8429. The microbe in (I) further comprises a recombinant gene encoding a desired gene product. The recombinant gene encodes a gene product from a pathogen such as virus, bacterium, protozoan, parasite or fungus, a product capable of suppressing, modulating or augmenting an immune response in the individual, an autoantigen e.g., a gamete specific antigen, or an allergen.

ABEX WIDER DISCLOSURE - Microbes having attenuating mutation comprising a transcription terminator, are also disclosed. The attenuated microbes can be used for vaccines and/or for delivery vehicles for a desired gene product. The microbes can thus serve as live attenuated vaccines capable of eliciting an immunogenic response and a protective immunity in the individual to which it is administered. Also the attenuated microbes can be used for the commercial production of recombinant proteins.

ADMINISTRATION - The vaccine is administered by oral injection, gastric intubation, or broncho-nasal-ocular spraying, or by intravenous, intramuscular, or intramammary injection. No specific clinical dosages are given.

EXAMPLE - The defined DELTAphoP24 mutation was designed to include insertion of a transcription terminator and this was introduced into Salmonella typhimurium SL1344 to produce strain MGN-1362. The DELTAphoP24 deletion was obtained using inverse polymerase chain reaction (PCR) with primers phoP 40-20 and phoP 815-839 based on the Miller et al., Proc.Natl.Acad.Sci.86:5054-5058, 1989 sequence of the phoPQ region to remove the entire coding region of phoP and 100 bp of upstream DNA from the phoPQ clone pEG-5381. Although this deletion removed all of the phoP coding region, the phoQ coding region was left intact. This PCR product was then digested with BglII and EcoRI to cut within the designed primers and provide compatible ends for ligation to the annealed trpA transcription germinator oligos. The ligation described resulted in the production of pMEG-359. The 3.1 kb EcoRV fragment of pMEG-359 was then

cloned into the SmaI site of the suicide vector, pMEG-149, to produce the DELTAphoP24 suicide plasmid pMEG-368. Deletion of the phoP region and insertion of the trpA transcription terminator was then confirmed by sequence analysis. Since pMEG-368 is a mobilizable suicide vector encoding for the selectable ampicillin resistance marker and the counter selectable marker, levansucrase, resulting in sensitivity to sucrose, the plasmid can be conjugated into any strain desired selecting for ampicillin resistance followed by counter-selection for the replacement of the wild-type phoP gene with the deltaphoP24 mutation in the presence of sucrose. The strain responsible for the delivery of pMEG-368 was obtained by electroporating pMEG-368 into the Pir+ Asd- delivery host MGN-617 to produce MGN-617 (pMEG-368). The pMEG-368 suicide construct was then conjugationally transferred into the S.typhimurium SL1344 strain chi3339, followed by selection for ampicillin resistant isolates which grew without DAP (diaminopimelic acid). One of the isolates, MGN-1361, from this conjugation, representing the single integration of the DELTAphoP24 deletion plasmid into the chromosome to produce a duplication of the phoP region with both the wild-type phoP gene and the mutant DELTAphoP24 allele. MGN-1361 was then plated on Luria agar containing 5% sucrose to select for loss of the ampicillin-resistance suicide vector. The isolates obtained by this selection were then screened for acid phosphate activity. The white phosphatase-negative colonies were then confirmed for the DELTAphoP24 phosphatase minus phenotype and stocked as MGN-1362. A strain MGN-617 (pMEG-368) was used to introduce the DELTAphoP24 mutation into a diversity of S.typhimurium, S.paratyphi A and S.typhi strains. In all cases the strains failed to express the non-specific acid phosphatase encoded by the phoN gene and using PCR analysis had approximately 730 base pairs (bp) of DNA less than in the phoPQ wild-type strain. This represented a deletion of 775 bp of the phoP gene and the insertion of 45 bp specifying the trpA transcription terminator.

L59 ANSWER 35 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2002-690113 [200274] WPIX
CROSS REFERENCE: 2000-532863; 2002-557291; 2002-598710; 2002-635659; 2002-635674
DOC. NO. CPI: C2002-195008 [200274]
TITLE: Immunogenic composition, useful to prevent or treat pathogenic bacterial infection, comprises live bacteria with DNA adenine methylase activity altered relative to wild-type, and which also express a heterologous antigen
DERWENT CLASS: B04; D13; D16
INVENTOR: HEITHOFF D M; LOW D A; MAHAN M J; SINSHEIMER R L
PATENT ASSIGNEE: (HEIT-I) HEITHOFF D M; (LOWD-I) LOW D A; (MAHA-I) MAHAN M J; (SINS-I) SINSHEIMER R L
COUNTRY COUNT: 1

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20020081317	A1	20020627	(200274)*	EN	44[9]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20020081317	A1 Provisional	US 1999-183043P	19990202
US 20020081317	A1 Provisional	US 1999-198250P	19990505
US 20020081317	A1 CIP of	US 2000-495614	20000201
US 20020081317	A1 CIP of	US 2000-612116	20000707

US 20020081317 A1 US 2001-927788 20010809

PRIORITY APPLN. INFO: US 2001-927788 20010809
US 1999-183043P 19990202
US 1999-198250P 19990505
US 2000-495614 20000201
US 2000-612116 20000707

ACTN MECHANISM OF ACTION - Vaccine.

The ability of Dam- and Dam overproducing Salmonella to elicit cross-protection was tested. BALB/c mice were immunized with 1x109 Dam- or Dam overproducing Salmonella administered orally. Mice were challenged with the virulent Salmonella serotype eleven weeks post-immunization, which was six weeks after the vaccine strains were cleared from murine tissues, including Peyer's patches, mesenteric lymph nodes, liver, and spleen. The results showed that mice were protected against a heterologous challenge eleven weeks post immunization. Immunization with Dam- S.enteritidis conferred cross-protection against challenge with 109 S.typhimurium and 109 S.dublin after five weeks and conferred cross-protection for even longer periods. One third of mice vaccinated with a single oral dose of Dam S.enteritidis survived a virulent heterologous challenge eleven weeks post-immunization of 104 above the lethal dose required to kill 50% of the animals against strains S.dublin and S.typhimurium, comparable to the level of survival observed upon homologous challenge. To test whether Dam overproducing strains elicited protective immune responses to homologous and heterologous Salmonella serotypes similar to Dam strains, mice were immunized with Dam- overproducing S.typhimurium. 75% of immunized mice survived a challenge dose of 1000-fold above the LD50 of S.dublin and S.typhimurium. Taken together, these studies indicated that Salmonella strains that under- or over-produced Dam were highly attenuated and served as protective live vaccines against homologous and at least some heterologous serotypes.

USE

USE - (I) is useful for eliciting an immune response in an individual, and for treating or preventing pathogenic bacterial, viral, fungal, parasitic and vector borne infections (all claimed), especially Salmonella infections.

TECH

BIOTECHNOLOGY - Preferred Composition: In (I), the Dam activity is altered by an artificially engineered change in the pathogenic bacteria's genome, or by a second heterologous nucleotide sequence. The first heterologous sequence is operatively inserted into a first or second expression cassette, and the second heterologous sequence is operatively inserted into a second expression cassette. The genetically engineered change is a non-lethal, non-reverting mutation which renders the bacteria attenuated. The heterologous antigen is an antigen of a pathogenic virus or bacteria. The heterologous antigen is mammalian tumor antigen, mammalian immune disease antigen, or an antigen of a microorganism which causes an enteric, respiratory, fungal, parasitic, or vector borne infection, or a sexually transmitted disease, a herpes virus infection or a hepatitis virus infection. The microorganism which causes the enteric infection is a bacteria selected from Enterotoxigenic Escherichia coli, Helicobacter pylori, Neisseria meningitis, Salmonella (non typhoidal), S.typhi, Shiga toxin producing E.coli, Shigella spp., and Vibrio cholera, or a virus selected from Astrovirus, Coxsackievirus, Echovirus, Norwalk virus, Poliovirus, and Rotavirus. The microorganism which causes the respiratory infection is a virus selected from influenza virus, Measles virus, Parainfluenza virus, Paramyxovirus, Respiratory syncytial virus, Rhinovirus, and Rubella virus, or a bacteria selected from Bordetella pertussis, Chlamydia pneumoniae, Haemophilus influenzae B , NT H.influenzae, Moraxella catarrhalis, Mycobacterium tuberculosis, and

Mycoplasma pneumoniae. The microorganism which causes the sexually transmitted disease is a virus selected from HIV and human papillomavirus or a bacteria selected from Chlamydia trachomatis, Neisseria gonorrhoeae and Treponema pallidum. The microorganism which causes the herpes virus infection is selected from Cytomegalovirus, Epstein-Barr virus, Herpes simplex II, and Varicella zoster virus. The microorganism which causes the hepatitis virus infection is selected from Hepatitis A, Hepatitis B, Hepatitis C, Hepatitis D, Hepatitis E and Hepatitis G. The microorganism which causes the fungal infection is a fungi selected from Aspergillus fumigatus, Blastomyces dermatitidis, Candida spp., Coccidioides immitis, Cryptococcus neoformans, Histoplasma capsulatum and Paracoccidioides brasiliensis. The microorganism which causes the parasitic infection is selected from Ascaris lumbricoides, Entamoeba histolytica, Enterobius vermicularis, Giardia lamblia, Mycobacterium leprae, Plasmodium spp., Schistosoma spp., Taenia, Toxoplasma gondii, and Trichomoniasis vaginalis. The microorganism which causes the vector borne infection is selected from Arbovirus, Bacillus anthracis, Borrelia burgdorferi, Dengue viruses, Japanese encephalitis virus and Rabies virus. Preparation: (I) was prepared by standard recombinant techniques.

L59 ANSWER 36 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2000-431310 [200037] WPIX
TITLE: Vaccination against diseases caused by Chlamydia infection involves initial administration of attenuated bacteria containing nucleic acid encoding Chlamydia protein, followed by administration of Chlamydia protein
DERWENT CLASS: B04; D16
INVENTOR: BRUNHAM R; BRUNHAM R C; MURDIN A; MURDIN A D; BRUNHAM C; MURDIN D
PATENT ASSIGNEE: (AVET-C) AVENTIS PASTEUR LTD; (SNFI-C) SANOFI PASTEUR LTD; (UMNB-C) UNIV MANITOBA; (BRUN-I) BRUNHAM R C; (MURD-I) MURDIN A D; (SNFI-C) CONNAUGHT LAB LTD
COUNTRY COUNT: 89

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2000034498	A1	20000615	(200037)*	EN	32[5]	
AU 2000015407	A	20000626	(200045)	EN		
EP 1169465	A1	20020109	(200205)	EN		
US 20020168382	A1	20021114	(200277)	EN		
JP 2002531135	T	20020924	(200278)	JA	35	
NZ 512730	A	20031219	(200404)	EN		
US 6676949	B2	20040113	(200405)	EN		
US 20040126382	A1	20040701	(200444)	EN		
US 20040131630	A1	20040708	(200445)	EN		
AU 772356	B2	20040422	(200457)	EN		
MX 2001005615	A1	20040901	(200553)	ES		
EP 1169465	B1	20060301	(200617)	EN		
US 7026300	B2	20060411	(200626)	EN		
DE 69930147	E	20060427	(200629)	DE		
DE 69930147	T2	20070111	(200707)	DE		
US 20080095804	A1	20080424	(200830)	EN		
US 20090215151	A1	20090827	(200957)	EN		
MX 264056	B	20090123	(200961)	ES		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

WO 2000034498 A1	WO 1999-CA1151 19991202
US 20020168382 A1 Provisional	US 1998-110855P 19981204
US 6676949 B2 Provisional	US 1998-110855P 19981204
US 20040126382 A1 Provisional	US 1998-110855P 19981204
US 20040131630 A1 Provisional	US 1998-110855P 19981204
US 7026300 B2 Provisional	US 1998-110855P 19981204
US 20080095804 A1 Provisional	US 1998-110855P 19981204
US 20090215151 A1 Provisional	US 1998-110855P 19981204
DE 69930147 E	DE 1999-69930147 19991202
DE 69930147 T2	DE 1999-69930147 19991202
EP 1169465 A1	EP 1999-957789 19991202
EP 1169465 B1	EP 1999-957789 19991202
DE 69930147 E	EP 1999-957789 19991202
DE 69930147 T2	EP 1999-957789 19991202
NZ 512730 A	NZ 1999-512730 19991202
EP 1169465 A1	WO 1999-CA1151 19991202
JP 2002531135 T	WO 1999-CA1151 19991202
NZ 512730 A	WO 1999-CA1151 19991202
MX 2001005615 A1	WO 1999-CA1151 19991202
EP 1169465 B1	WO 1999-CA1151 19991202
DE 69930147 E	WO 1999-CA1151 19991202
DE 69930147 T2	WO 1999-CA1151 19991202
US 20080095804 A1 Cont of	WO 1999-CA1151 19991202
US 20020168382 A1	US 1999-453289 19991203
US 6676949 B2	US 1999-453289 19991203
US 20040126382 A1 Div Ex	US 1999-453289 19991203
US 20040131630 A1 Div Ex	US 1999-453289 19991203
US 7026300 B2 Div Ex	US 1999-453289 19991203
US 20090215151 A1 Div Ex	US 1999-453289 19991203
AU 2000015407 A	AU 2000-15407 19991202
AU 772356 B2	AU 2000-15407 19991202
JP 2002531135 T	JP 2000-586931 19991202
MX 2001005615 A1	MX 2001-5615 20010604
US 20080095804 A1 Cont of	US 2001-857305 20011003
US 20040131630 A1	US 2003-699683 20031104
US 20090215151 A1 Cont of	US 2003-699683 20031104
US 20040126382 A1	US 2003-699882 20031104
US 7026300 B2	US 2003-699882 20031104
US 20090215151 A1 Cont of	US 2007-976215 20071023
US 20080095804 A1	US 2007-683 20071217
US 20090215151 A1	US 2009-402568 20090312
MX 264056 B PCT Application	WO 1999-CA1151 19991202
MX 264056 B	MX 2001-5615 20010604

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 772356 B2	Previous Publ	AU 2000015407 A
DE 69930147 E	Based on	EP 1169465 A
DE 69930147 T2	Based on	EP 1169465 A
US 20040126382 A1	Div ex	US 6676949 B
US 20040131630 A1	Div ex	US 6676949 B
US 7026300 B2	Div ex	US 6676949 B
US 20090215151 A1	Div Ex	US 6676949 B
AU 2000015407 A	Based on	WO 2000034498 A
EP 1169465 A1	Based on	WO 2000034498 A
JP 2002531135 T	Based on	WO 2000034498 A
NZ 512730 A	Based on	WO 2000034498 A

AU 772356 B2	Based on	WO 2000034498 A
MX 2001005615 A1	Based on	WO 2000034498 A
EP 1169465 B1	Based on	WO 2000034498 A
DE 69930147 E	Based on	WO 2000034498 A
DE 69930147 T2	Based on	WO 2000034498 A
MX 264056 B	Based on	WO 2000034498 A

PRIORITY APPLN. INFO: US 1998-110855P 19981204
WO 1999-CA1151 19991202
US 1999-453289 19991203
US 2001-857305 20011003
US 2003-699683 20031104
US 2003-699882 20031104
US 2007-976215 20071023
US 2007-683 20071217
US 2009-402568 20090312

NOV NOVELTY - Immunizing (I) a host against infection caused by a strain of Chlamydia, comprises administration of an attenuated bacteria harboring a nucleic acid molecule (II) encoding an immunoprotection-inducing Chlamydia protein followed by administration of purified Chlamydia protein or its fragment, which generates a Chlamydia protein specific immune response in the host.

ACTN MECHANISM OF ACTION - Vaccine.

Salmonella typhimurium strain 22-4 was transfected with MOMP gene containing plasmid, pcDNA3/MOMP by electroporation and cultured. Groups of Balb/c mice were immunized with 105-1010 CFU of attenuated strains of Salmonella. Four inoculation at two week intervals were administered. A single protein boost with 1 micrograms Chlamydia trachomatis mouse pneumonitis strain (MoPn) MOMP embedded in ISCOM was given intramuscularly at the time of forth immunization. Mice were challenged with 5000 IU MoPn B intranasally two weeks after the last immunization and were sacrificed at day 10 post infection. The mice were found to be effectively protected where protein index = 4.1, against MoPn lung infection.

TECH

BIOTECHNOLOGY - Preferred Protein: The immunoprotection-inducing Chlamydia protein or fragment is a major outer membrane protein (MOMP) of Chlamydia strain, preferably Chlamydia pneumoniae or Chlamydia trachomatis. The protein used in subsequent administration is administered by incorporating into an immunostimulating complex (ISCOM). The attenuated bacteria is an attenuated strain of Salmonella typhimurium. Preferred Nucleic Acid: (II) encoding MOMP is provided in a plasmid vector comprising a promoter sequence, preferably cytomegalovirus promoter operably coupled to the nucleic acid for expression of Chlamydia protein in a host. The plasmid vector has the identifying characteristics of pcDNA3/MOMP as given in the specification. Preparation: Chlamydia protein can be produced recombinantly or can be extracted from a Chlamydia extract.

L59 ANSWER 37 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2000-256988 [200022] WPIX
DOC. NO. CPI: C2000-078557 [200022]
TITLE: Attenuated gram-negative Salmonella cells, comprising inactivated genes in the SPI2 locus and useful for vaccinating against a range of disorders associated with microbial infections such as stomach and cervical cancers
DERWENT CLASS: B04; D16
INVENTOR: APFEL H; GUZMAN C; GUZMAN C A; GUZM N C A; HENSEL M; HOLDEN D W; HUECK C; MEDINA E; SHEA J E; HOLDEN D W D
PATENT ASSIGNEE: (UNLO-C) IMPERIAL COLLEGE INNOVATIONS LTD; (CREA-N) CREATOGEN AG; (CREA-N) CREATOGEN BIOSCIENCES GMBH;

(MICR-N) MICROSCIENCE LTD; (EMER-N) EMERGENT PROD DEV UK LTD

COUNTRY COUNT: 87

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2000014240	A2	20000316	(200022)*	EN	147[20]	
AU 9958605	A	20000327	(200032)	EN		
EP 1108034	A2	20010620	(200135)	EN		
BR 9914479	A	20010626	(200140)	PT		
JP 2002524077	T	20020806	(200266)	JA	181	
US 20040203039	A1	20041014	(200469)	EN		
US 6936425	B1	20050830	(200557)	EN		
US 20080075739	A1	20080327	(200825)	EN		
EP 1108034	B1	20080806	(200854)	EN		
DE 69939264	E	20080918	(200862)	DE		
EP 1970449	A1	20080917	(200862)	EN		
US 7700104	B2	20100420	(201027)	EN		
EP 1970449	B1	20101103	(201072)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000014240	A2	WO 1999-EP6514	19990903
AU 9958605	A	AU 1999-58605	19990903
BR 9914479	A	BR 1999-14479	19990903
DE 69939264	E	DE 1999-69939264	19990903
EP 1108034	A2	EP 1999-946122	19990903
EP 1108034	B1	EP 1999-946122	19990903
DE 69939264	E	EP 1999-946122	19990903
EP 1970449	A1 Div Ex	EP 1999-946122	19990903
US 7700104	B2 Div Ex	US 1999-763620	19990903
EP 1108034	A2 PCT Application	WO 1999-EP6514	19990903
BR 9914479	A PCT Application	WO 1999-EP6514	19990903
JP 2002524077	T PCT Application	WO 1999-EP6514	19990903
US 20040203039	A1 Div Ex	WO 1999-EP6514	19990903
US 6936425	B1 PCT Application	WO 1999-EP6514	19990903
US 20080075739	A1 Div Ex	WO 1999-EP6514	19990903
EP 1108034	B1 PCT Application	WO 1999-EP6514	19990903
DE 69939264	E PCT Application	WO 1999-EP6514	19990903
US 7700104	B2 Div Ex	WO 1999-EP6514	19990903
JP 2002524077	T	JP 2000-568983	19990903
US 20040203039	A1 Div Ex	US 2001-763620	20010302
US 20080075739	A1 Div Ex	US 2001-763620	20010302
US 6936425	B1	US 2002-763620	20020301
US 20040203039	A1	US 2004-763883	20040123
US 20080075739	A1 Cont of	US 2004-763883	20040123
US 7700104	B2	US 2004-763883	20040123
US 20080075739	A1	US 2007-840928	20070817
EP 1970449	A1	EP 2008-75560	19990903
EP 1108034	B1 Related to	EP 2008-75560	20080619
EP 1970449	B1 Div Ex	EP 1999-946122	19990903
EP 1970449	B1	EP 2008-75560	19990903

FILING DETAILS:

PATENT NO	KIND	PATENT NO

DE 69939264 E	Based on	EP 1108034 A
EP 1970449 A1	Div ex	EP 1108034 A
US 20080075739 A1	Div ex	US 6936425 B
US 7700104 B2	Div Ex	US 6936425 B
AU 9958605 A	Based on	WO 2000014240 A
EP 1108034 A2	Based on	WO 2000014240 A
BR 9914479 A	Based on	WO 2000014240 A
JP 2002524077 T	Based on	WO 2000014240 A
US 6936425 B1	Based on	WO 2000014240 A
EP 1108034 B1	Based on	WO 2000014240 A
DE 69939264 E	Based on	WO 2000014240 A
EP 1970449 B1	Div Ex	EP 1108034 A

PRIORITY APPLN. INFO: EP 1998-116827 19980904
ACTN MECHANISM OF ACTION - Vaccine.

The presence of beta-galactosidase (beta-gal) (which acted as an antigen) specific antibodies in intestinal washes from mice immunized with MvP101 or MvP103 (sseC::aphT and sseD::aphT mutant Salmonella typhimurium strains) carrying pAH97 was investigated 52 days after immunization. It was found that both carriers stimulated the production of significant amounts of beta-gal-specific immunoglobulin (Ig) A and to a lesser extent, favored the transudation of antigen-specific IgG in the intestinal lumen. Immunization with MvP103/pAH97 resulted in 4% of the total Ig obtained from intestinal lavages being IgA specific for beta-gal and 0.25% of the Ig was IgB specific for beta-gal. Immunization with MvP101/pAH97 resulted in 4.25% of the total Ig obtained from intestinal lavages being IgA specific for beta-gal and 1% of the Ig was IgB specific for beta-gal. No significant differences were observed among the mucosal responses to the different recombinant clones.

USE

USE - The attenuate cells are used as carriers for presenting bacterial, viral or tumor antigens to a host and are capable of expressing the nucleic acid molecules in a target cell, especially a macrophage (claimed). Therefore, the cells may be used for the preparation of a prophylactic or therapeutic composition for the treatment of a chronic disease caused by a bacterium or virus (claimed). Preferably, the disease is either a Salmonella infection or a tumor. The cells may therefore be used to vaccinate against a range of bacterial and viral pathogens such as Helicobacter pylori (directly associated with stomach cancer), Chlamydia pneumoniae (associated with arteriosclerosis and Alzheimer's disease), Borrella burgdorferi, Nanobacteria (found in the chronically diseased kidneys of patients with crystalline deposits), Hepatitis virus (causative agent of Hepatitis B and C and associated with liver cancer), Human papilloma virus (HPV) (associated with cervical cancer) or Hepes virus (claimed). The nucleic acids may also be used for the detection of in vivo inducible promoters.

L59 ANSWER 38 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2000-195303 [200017] WPIX
TITLE: Chlamydia pneumoniae antigens used for immunization and protection against Chlamydia diseases
DERWENT CLASS: B04; D16; S03
INVENTOR: DUNN P L; MURDIN A D; OOMEN R P
PATENT ASSIGNEE: (AVET-C) AVENTIS PASTEUR LTD; (SNFI-C) CONNAUGHT LAB LTD
COUNTRY COUNT: 85

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC

WO 2000006743	A2	20000210	(200017)*	EN	52[4]
AU 9947934	A	20000221	(200029)	EN	
EP 1108033	A2	20010620	(200135)	EN	
JP 2002524035	T	20020806	(200266)	JA	72
MX 2001001090	A1	20020601	(200365)	ES	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000006743	A2	WO 1999-IB1333	19990727
AU 9947934	A	AU 1999-47934	19990727
EP 1108033	A2	EP 1999-931399	19990727
EP 1108033	A2	WO 1999-IB1333	19990727
JP 2002524035	T	WO 1999-IB1333	19990727
MX 2001001090	A1	WO 1999-IB1333	19990727
JP 2002524035	T	JP 2000-562525	19990727
MX 2001001090	A1	MX 2001-1090	20010129

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9947934	A	Based on	WO 2000006743 A
EP 1108033	A2	Based on	WO 2000006743 A
JP 2002524035	T	Based on	WO 2000006743 A
MX 2001001090	A1	Based on	WO 2000006743 A

PRIORITY APPLN. INFO: US 1999-360434 19990726
US 1999-122045P 19990301
US 1998-94203P 19980727

DETD DETAILED DESCRIPTION - An isolated polynucleotide (I), is new, and is selected from:

(a) a 961 bp sequence given in the specification;

(b) a polynucleotide encoding a polypeptide which is at least 75% homologous to a 265 amino acid sequence given in the specification; and

(c) a polynucleotide capable of hybridizing under stringent conditions to the 961 bp sequence given in the specification.

INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polypeptide that is at least 75% homologous to the 237 amino acid sequence given in the specification;

(2) an expression cassette, comprising (I) operably linked to a promoter;

(3) an expression vector comprising the expression cassette of (2);

(4) a host cell comprising the expression cassette of (2);

(5) a method for producing a recombinant CPN100314 polypeptide, comprising culturing the host cell of (4);

(6) a vaccine vector, comprising the expression cassette of (2);

(7) a pharmaceutical composition, comprising the vaccine vector of (6);

(8) a pharmaceutical composition, comprising the polypeptide of (1), and further comprising one or more known Chlamydia antigens;

(9) a method for inducing an immune response in a mammal, comprising administering to the mammal an immunologically effective amount of the vaccine vector of (6) or the pharmaceutical composition of (8);

(10) a polynucleotide probe reagent (especially a DNA primer) capable of detecting the presence of Chlamydia in biological material, comprising a polynucleotide that hybridizes to (I) under stringent conditions;

(11) a hybridization method for detecting the presence of Chlamydia in a sample, comprising obtaining polynucleotide from the sample, hybridizing the polynucleotide with the probe of (10) and (c) detecting hybridization;

(12) an amplification method for detecting the presence of Chlamydia in a sample, comprising obtaining polynucleotide from the sample, amplifying the polynucleotide using one or more of the reagent probes of (10) and (c) detecting the amplified polynucleotide;

(13) a method for detecting the presence of Chlamydia in a sample, comprising contacting the sample with a detecting reagent (especially an antibody) that binds to CPN100314 polypeptide to form a complex;

(14) an affinity chromatography method for purifying a CPN100314 polypeptide, comprising contacting a sample containing a CPN100314 polypeptide with a detecting reagent (especially an antibody) that binds to CPN100314 polypeptide to form a complex, isolating the formed complex, dissociating the formed complex and isolating the dissociated CPN100314 polypeptide; and

(15) an antibody that immunospecifically binds the polypeptide of (1).

USE

USE - The Chlamydia pneumoniae polynucleotides and polypeptides can be used in vaccination methods for preventing and treating Chlamydia infection (e.g. infections caused by C. trachomatis, C. psittaci, C. pneumoniae or C. pecorum). The polynucleotides can be used to produce the polypeptides recombinantly, in the construction of vaccine vectors, as a vaccine agent, and in the construction of an attenuated Chlamydia strain. The polypeptides are also useful as vaccine agents, and for the preparation of medicaments for treating or preventing Chlamydia infection, e.g. community acquired pneumonia, and upper respiratory tract infections such as bronchitis and sinusitis.

L59 ANSWER 39 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2000-205466 [200018] WPIX
TITLE: Chlamydia pneumoniae antigens used for immunization and protection against Chlamydia diseases
DERWENT CLASS: B04; D16; S03
INVENTOR: DUNN P L; MURDIN A D; OOMEN R P
PATENT ASSIGNEE: (AVET-C) AVENTIS PASTEUR LTD; (SNFI-C) CONNAUGHT LAB LTD
COUNTRY COUNT: 85

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2000006742	A2	20000210	(200018)*	EN	48[2]	
AU 9947932	A	20000221	(200029)	EN		
EP 1105488	A2	20010613	(200134)	EN		
JP 2002525028	T	20020813	(200267)	JA	65	
US 20020150591	A1	20021017	(200275)	EN		
MX 2001001092	A1	20020601	(200365)	ES		
US 6660275	B2	20031209	(200381)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000006742	A2	WO 1999-IB1331	19990727
US 20020150591	A1 Provisional	US 1998-94195P	19980727
US 6660275	B2 Provisional	US 1998-94195P	19980727
US 20020150591	A1	US 1999-361443	19990726

US 6660275 B2	US 1999-361443 19990726
AU 9947932 A	AU 1999-47932 19990727
EP 1105488 A2	EP 1999-931397 19990727
EP 1105488 A2	WO 1999-IB1331 19990727
JP 2002525028 T	WO 1999-IB1331 19990727
MX 2001001092 A1	WO 1999-IB1331 19990727
JP 2002525028 T	JP 2000-562524 19990727
MX 2001001092 A1	MX 2001-1092 20010129

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9947932 A	Based on	WO 2000006742 A
EP 1105488 A2	Based on	WO 2000006742 A
JP 2002525028 T	Based on	WO 2000006742 A
MX 2001001092 A1	Based on	WO 2000006742 A

PRIORITY APPLN. INFO: US 1999-361443 19990726
US 1998-94195P 19980727

DETD DETAILED DESCRIPTION - Chlamydia pneumoniae antigen polynucleotides (I) are selected from:

(a) a defined 1401 bp sequence encoding a 467 amino acid protein (given in the specification); and

(b) a polynucleotide capable of hybridizing under stringent conditions to the 1401 bp sequence.

INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polypeptide that is at least 75% homologous to the 450 amino acid sequence given in the specification;

(2) an expression cassette, comprising (I) operably linked to a promoter;

(3) an expression vector comprising the expression cassette of (2);

(4) a host cell comprising the expression cassette of (2);

(5) a method for producing a recombinant CPN100605 polypeptide, comprising culturing the host cell of (4);

(6) a vaccine vector, comprising the expression cassette of (2);

(7) a pharmaceutical composition, comprising the vaccine vector of (6);

(8) a pharmaceutical composition, comprising an immunologically effective amount of the polypeptide of (1), and further comprising one or more known Chlamydia antigens;

(9) a method for inducing an immune response in a mammal, comprising administering the vaccine vector of (6) or the pharmaceutical composition of (8);

(10) a polynucleotide probe reagent (especially a DNA primer) capable of detecting the presence of Chlamydia in biological material, comprising a polynucleotide that hybridizes to (I) under stringent conditions;

(11) a hybridization method for detecting the presence of Chlamydia in a sample, comprising:

(a) obtaining a polynucleotide from the sample;

(b) hybridizing the polynucleotide with the probe of (10); and

(c) detecting hybridization;

(12) an amplification method for detecting the presence of Chlamydia in a sample, comprising obtaining polynucleotide from the sample, amplifying the polynucleotide using one or more of the reagent probes of (10) and detecting the amplified polynucleotide;

(13) a method for detecting the presence of Chlamydia in a sample, comprising contacting the sample with a detecting reagent (especially an antibody) that binds to CPN100605 polypeptide to form a complex, and detecting the formed complex;

(14) an affinity chromatography method for purifying a CPN100605 polypeptide, comprising contacting a sample containing a CPN100605 polypeptide with a detecting reagent (especially an antibody) that binds to CPN100605 polypeptide to form a complex, isolating the formed complex, dissociating the formed complex, and isolating the dissociated CPN100605 polypeptide; and

(15) an antibody that immunospecifically binds the polypeptide of (1).

USE

USE - The Chlamydia pneumoniae polynucleotides and polypeptides can be used in vaccination methods for preventing and treating Chlamydia infection (e.g. infections caused by C. trachomatis, C. psittaci, C. pneumoniae or C. pecorum). The polynucleotides can be used to produce the polypeptides recombinantly, in the construction of vaccine vectors, as a vaccine agent, and in the construction of an attenuated Chlamydia strain. The polypeptides are also useful as vaccine agents, and for the preparation of medicaments for treating or preventing Chlamydia infection, e.g. community acquired pneumonia, and upper respiratory tract infections such as bronchitis and sinusitis.

L59 ANSWER 40 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2000-205465 [200018] WPIX
TITLE: Novel Chlamydia pneumoniae antigens used for immunization and protection against Chlamydia diseases
DERWENT CLASS: B04; D16; S03
INVENTOR: MURDIN A D; OOMEN R P
PATENT ASSIGNEE: (AVET-C) AVENTIS PASTEUR LTD; (SNFI-C) CONNAUGHT LAB LTD
COUNTRY COUNT: 85

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2000006740	A1	20000210	(200018)*	EN	51[2]	
AU 9947930	A	20000221	(200029)	EN		
EP 1100918	A1	20010523	(200130)	EN		
JP 2002524034	T	20020806	(200266)	JA	63	
US 20030147924	A1	20030807	(200358)	EN		
MX 2001001088	A1	20020601	(200365)	ES		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000006740	A1	WO 1999-IB1329	19990727
US 20030147924	A1 Provisional	US 1998-94191P	19980727
US 20030147924	A1	US 1999-361040	19990726
AU 9947930	A	AU 1999-47930	19990727
EP 1100918	A1	EP 1999-931395	19990727
EP 1100918	A1	WO 1999-IB1329	19990727
JP 2002524034	T	WO 1999-IB1329	19990727
MX 2001001088	A1	WO 1999-IB1329	19990727
JP 2002524034	T	JP 2000-562522	19990727
MX 2001001088	A1	MX 2001-1088	20010129

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9947930	A Based on	WO 2000006740 A

EP 1100918 A1 Based on WO 2000006740 A
JP 2002524034 T Based on WO 2000006740 A
MX 2001001088 A1 Based on WO 2000006740 A

PRIORITY APPLN. INFO: US 1999-361040 19990726
US 1998-94191P 19980727

DETD DETAILED DESCRIPTION - An isolated polynucleotide (I), is new, and is selected from:

(a) the 1600 bp sequence given in the specification, and functional fragments thereof;

(b) a polynucleotide encoding a polypeptide which is at least 75% homologous to the 459 amino acid sequence given in the specification, and functional fragments thereof;

(c) a polynucleotide capable of hybridizing under stringent conditions to the 1600 bp sequence given in the specification, and functional fragments thereof.

INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polypeptide that is at least 75% homologous to the 421 amino acid sequence given in the specification, and functional fragment thereof;

(2) an expression cassette, comprising (I) operably linked to a promoter;

(3) an expression vector comprising the expression cassette of (2);

(4) a host cell comprising the expression cassette of (2);

(5) a method for producing a recombinant CPN100149 polypeptide, comprising culturing the host cell of (4) under conditions that allow the expression of the polypeptide; and recovering the recombinant polypeptide;

(6) a vaccine vector, comprising the expression cassette of (2);

(7) a pharmaceutical composition, comprising an immunologically effective amount of the vaccine vector of (6);

(8) a pharmaceutical composition, comprising an immunologically effective amount of the polypeptide of (1), and further comprising an adjuvant, and further comprising one or more known Chlamydia antigens;

(9) a method for inducing an immune response in a mammal, comprising administering to the mammal an immunologically effective amount of the vaccine vector of (6) OR the pharmaceutical composition of (8), wherein the administration induces an immune response;

(10) a polynucleotide probe reagent (especially a DNA primer) capable of detecting the presence of Chlamydia in biological material, comprising a polynucleotide that hybridizes to (I) under stringent conditions;

(11) a hybridization method for detecting the presence of Chlamydia in a sample, comprising:

(a) obtaining polynucleotide from the sample;

(b) hybridizing the polynucleotide with the probe of (10) under hybridization conditions; and

(c) detecting hybridization of the probe to the polynucleotide;

(12) an amplification method for detecting the presence of Chlamydia in a sample, comprising:

(a) obtaining polynucleotide from the sample;

(b) amplifying the polynucleotide using one or more of the reagent probes of (10); and

(c) detecting the amplified polynucleotide;

(13) a method for detecting the presence of Chlamydia in a sample, comprising contacting the sample with a detecting reagent (especially an antibody) that binds to CPN100149 polypeptide to form a complex, and detecting the formed complex;

(14) an affinity chromatography method for substantially purifying a CPN100149 polypeptide, comprising:

(a) contacting a sample containing a CPN100149 polypeptide with a detecting reagent (especially an antibody) that binds to CPN100149

polypeptide to form a complex;
(b) isolating the formed complex;
(c) dissociating the formed complex; and
(d) isolating the dissociated CPN100149 polypeptide;
(15) an antibody that immunospecifically binds the polypeptide of (1), or a fragment or derivative of the antibody containing the binding domain.

USE

USE - The Chlamydia pneumoniae polynucleotides and polypeptides of the invention can be used in vaccination methods for preventing and treating Chlamydia infection (e.g. infections caused by C. trachomatis, C. psittaci, C. pneumoniae or C. pecorum). The polynucleotides can be used to produce the polypeptides recombinantly, in the construction of vaccine vectors, as a vaccine agent, and in the construction of an attenuated Chlamydia strain that can over-express a polypeptide of the invention, or express it in a modified form. The polypeptides are also useful as vaccine agents, and for the preparation of medicaments for treating or preventing Chlamydia infection, e.g. community acquired pneumonia, and upper respiratory tract infections such as bronchitis and sinusitis.

L59 ANSWER 41 OF 41 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2000-183129 [200016] WPIX
TITLE: Novel Chlamydia pneumoniae antigens used for immunization and protection against Chlamydia diseases
DERWENT CLASS: B04; D16; S03
INVENTOR: MURDIN A D; OOMEN R P
PATENT ASSIGNEE: (AVET-C) AVENTIS PASTEUR LTD; (SNFI-C) CONNAUGHT LAB LTD
COUNTRY COUNT: 85

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2000006739	A2	20000210	(200016)*	EN	45[2]	
AU 9947929	A	20000221	(200029)	EN		
EP 1144638	A2	20011017	(200169)	EN		
JP 2002521059	T	20020716	(200261)	JA	62	
MX 2001001089	A1	20020601	(200365)	ES		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000006739	A2	WO 1999-IB1328	19990727
AU 9947929	A	AU 1999-47929	19990727
EP 1144638	A2	EP 1999-931394	19990727
EP 1144638	A2	WO 1999-IB1328	19990727
JP 2002521059	T	WO 1999-IB1328	19990727
MX 2001001089	A1	WO 1999-IB1328	19990727
JP 2002521059	T	JP 2000-562521	19990727
MX 2001001089	A1	MX 2001-1089	20010129

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9947929 A	Based on	WO 2000006739 A
EP 1144638 A2	Based on	WO 2000006739 A
JP 2002521059 T	Based on	WO 2000006739 A
MX 2001001089 A1	Based on	WO 2000006739 A

PRIORITY APPLN. INFO: US 1999-360707 19990726
US 1998-94198P 19980727
DETD DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polypeptide that is at least 75% homologous to the 363 amino acid sequence, and functional fragments of it;

(2) an expression cassette, comprising (I) operably linked to a promoter;

(3) an expression vector comprising the expression cassette of (2);

(4) a host cell comprising the expression cassette of (2);

(5) a method for producing a recombinant CPN100202 polypeptide, comprising culturing the host cell of (4) under conditions that allow the expression of the polypeptide, and recovering it;

(6) a vaccine vector, comprising the expression cassette of (2);

(7) a pharmaceutical composition, comprising an immunologically effective amount of the vaccine vector of (6);

(8) a pharmaceutical composition, comprising an immunologically effective amount of the polypeptide of (1), and further comprising an adjuvant, and one or more known Chlamydia antigens;

(9) a method for inducing an immune response in a mammal, comprising administering the vaccine vector of (6) or the pharmaceutical composition of (8);

(10) a polynucleotide probe reagent capable of detecting the presence of Chlamydia in biological material, comprising a polynucleotide that hybridizes to (I) under stringent conditions;

(11) a hybridization method for detecting the presence of Chlamydia in a sample, comprising obtaining polynucleotide from the sample, hybridizing the polynucleotide with the probe of (10) under hybridization conditions, and detecting hybridization;

(12) an amplification method for detecting the presence of Chlamydia in a sample, comprising obtaining polynucleotide from the sample, amplifying the polynucleotide using one or more of the reagent probes of (10), and detecting the amplified polynucleotide;

(13) a method for detecting the presence of Chlamydia in a sample, comprising contacting the sample with a detecting reagent that binds to CPN100202 polypeptide, and detecting the formed complex;

(14) an affinity chromatography method for substantially purifying a CPN100202 polypeptide, comprising contacting a sample with a detecting reagent that binds to CPN100202 polypeptide, and isolating the formed complex, dissociating it and isolating the CPN100202 polypeptide; and

(15) an antibody that immunospecifically binds the polypeptide of (1), or a fragment or derivative of the antibody containing the binding domain.

USE

USE - The Chlamydia pneumoniae polynucleotides and polypeptides of the invention can be used in vaccination methods for preventing and treating Chlamydia infections caused by C. trachomatis, C. psittaci, C. pneumoniae or C. pecorum The polynucleotides can be used to produce the polypeptides recombinantly, in the construction of vaccine vectors, as a vaccine agent, and in the construction of an attenuated Chlamydia strain that can over-express a polypeptide of the invention, or express it in a modified form. The polypeptides are also useful as vaccine agents, and for the preparation of medicaments for treating or preventing Chlamydia infection, e.g. community acquired pneumonia, and upper respiratory tract infections such as bronchitis and sinusitis.

=> fil hcap
FILE 'HCAPLUS' ENTERED AT 17:54:14 ON 13 DEC 2010

FILE COVERS 1907 - 13 Dec 2010 VOL 153 ISS 25
FILE LAST UPDATED: 12 Dec 2010 (20101212/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2010

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L41           82 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  L39 AND (ATTENUAT? OR
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=> d que l50
L50          12 SEA (CHLAMYDOPHIL? OR ?CHLAMYD?(2A)(ABORTUS OR FELIS OR
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=> dup rem l43 l50
FILE 'HCAPLUS' ENTERED AT 17:54:33 ON 13 DEC 2010
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PROCESSING COMPLETED FOR L43
PROCESSING COMPLETED FOR L50
L60          25 DUP REM L43 L50 (9 DUPLICATES REMOVED)
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                ANSWERS '23-24' FROM FILE MEDLINE
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L60  ANSWER 1 OF 25  HCAPLUS  COPYRIGHT 2010 ACS on STN DUPLICATE 1
ACCESSION NUMBER:        2009:1618863  HCAPLUS  Full-text
DOCUMENT NUMBER:         152:95703
TITLE:                   Salmonella vectors comprising attenuated SPI-2, aroC
                         and/or ssa genes and Chlamydia PmpG peptide as
                         vaccines against chlamydial infection
INVENTOR(S):             Telfer, Jonathan Lewis; Redfern, Mark Richard; Lacy,
                         Michael Joseph
PATENT ASSIGNEE(S):      Emergent Product Development UK Limited, UK
SOURCE:                  PCT Int. Appl., 108pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  3
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2009158240         A1    20091230    WO 2009-US47542         20090616
         W:  AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
             CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG,
             ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP,
             KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA,
             MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE,
             PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV,
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SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

WO 2008156729 A2 20081224 WO 2008-US7490 20080616
WO 2008156729 A3 20090226
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: WO 2008-US7490 A 20080616
US 2008-118204P P 20081126
US 2007-929129P P 20070614

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection

AB The invention provides an attenuated Salmonella vaccine vector comprising one or more heterologous polynucleotides that encode immunogenic Chlamydial peptides. In one embodiment, the attenuated Salmonella vaccine vector comprises aroC and ssaV attenuating mutations. The heterologous polynucleotides encoding the immunogenic Chlamydial peptides can be under the control of an inducible promoter such as a Salmonella ssaG promoter. In one embodiment of the invention, the immunogenic Chlamydial peptide is a PmpG peptide, for instance, a CT110, CT84 or CT40 peptide.

IT Mycolic acids
Oils
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(-based adjuvant; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Antigens
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(Chamydia; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Infection
(Chlamydial; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Oligonucleotides
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(CpG-containing; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Immune adjuvants

(Freund's incomplete; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Immune adjuvants
(Freund's; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(HtrA; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Antibodies and Immunoglobulins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(IgA, mucosal response; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(MOMP (major outer membrane protein); Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Immune adjuvants
(N-Opaca; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(OmcB; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(OmpH; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(PmpD (polymorphic membrane protein D); Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(PmpE (polymorphic membrane protein E); Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(PmpG (polymorphic membrane protein G); Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(PmpH (polymorphic membrane protein H); Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(PmpI (polymorphic membrane protein I); Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Arthritis
(Reiter's syndrome; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(SPI-2 (Salmonella pathogenicity island 2); Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT AIDS (disease)
Asthma
Atherosclerosis
Carotid artery stenosis
Cerebrovascular disease
Chlamydia
Chlamydia muridarum
Chlamydia pneumoniae
Chlamydia trachomatis
Chronic obstructive pulmonary disease
Claudication
Coronary artery disease
Coronary artery disease
DNA sequences
Drug delivery systems
Endometritis
Epididymis
Escherichia coli
Human
Human immunodeficiency virus
Immune adjuvants
Immunization
Linking agents
Liposomes
Lymphogranuloma venereum
Macrophage
Molecular cloning
Mutagenesis
Myocardial infarction

Newborn
Oral drug delivery systems
Oxidative stress, biological
Pharmaceutical adjuvants
Pharmaceutical carriers
Pharmaceutical liposomes
Pneumonia
Proctitis
Protein sequences
Salmonella
Salmonella enterica
Salmonella enterica dublin
Salmonella enterica enterica choleraesuis
Salmonella enterica enterica gallinarum
Salmonella enterica enterica pullorum
Salmonella enterica enteritidis
Salmonella enterica paratyphi
Salmonella enterica typhi
Salmonella enterica typhimurium
Salmonella hadar
Salmonella infantis
Sarcoidosis
Stroke
Trachoma
Uterine cervical dysplasia
Uterine cervicitis
Vaccines
(Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Nucleic acids
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Antibodies and Immunoglobulins
Chemokines
Cytokines
Interferons
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Glycoproteins
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Interleukins
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Peanut oil

RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Peptidoglycans
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Peptidoglycans
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Proteoglycans
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Saponins
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Salmonella enterica typhi
(ZH9; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Respiratory system disease
(acute; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Female reproductive system disease
(adnexitis; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Aneurysm
(aortic; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(aroC; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Lipopolysaccharides
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bacterial; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Immunization
(booster; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against

chlamydial infection)
IT Artery
(carotid, disease; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)
IT Immunity
(cell-mediated; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)
IT Pain
(chronic, pelvic; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)
IT Pharmaceutical excipients
(diluents; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)
IT Urethra
(disease, urethritis; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)
IT Pregnancy disorders
(ectopic pregnancy; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)
IT Mycolic acids
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(esters, with trehalose; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)
IT Klebsiella pneumoniae
(extract; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)
IT Gene, microbial
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(htrA; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)
IT Coordination compounds
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immune stimulating; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)
IT Promoter (genetic element)
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(inducible; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)
IT Eye disease
Lung disease
(infection; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)
IT Peptides

RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(linker; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Glycerides
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(miglyol; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Glycopeptides
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(mucopeptides; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Glycopeptides
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(muramic-acid containing diglycopeptides; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Oils
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(neutral; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Codons
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(optimization; Escherichia coli; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Alcohols
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyhydric; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Streptococcus
(preparation; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Prokaryota
(promoter; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Prostatitis
(prostatis; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Arthritis
Respiratory system disease
(reactive; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Female reproductive system disease
Inflammation

(salpingitis; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Chlamydia trachomatis
(serotype B; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Chlamydia trachomatis
(serotype F; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Chlamydia trachomatis
(serotype L2; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Genetic element
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(signal sequence, CS3; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Genetic element
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(signal sequence, secretion; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Secretion (process)
(signal; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Mutagenesis
(site-directed, deletion; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Mutagenesis
(site-directed, substitution; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssa; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaA; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaB; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)

(ssaC; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaD; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaE; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaF; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaG; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaH; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaI; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaJ; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaK; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaL; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)

(ssaM; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaO; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaP; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaQ; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaR; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaS; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaT; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaU; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssaV; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssc; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL

(Biological study); PROC (Process)
(sse; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Gene, microbial
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(ssr; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Fertility disorders
(tubal factor; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Inflammation
(urethritis; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Immunization
(vaccination; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT DNA
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(vaccine; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT Fats and Glyceridic oils
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vegetable; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT 9003-01-4D, Polyacrylic acid, crosslinked
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Carbopol; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT 99-20-7D, Trehalose, 6,6'-diesters with mycolic acids 100-37-8D, DEAE, dextran conjugate 1344-28-1, Aluminum oxide, biological studies 1406-18-4, Vitamin E 7429-90-5D, Aluminum, salts 7784-30-7, Aluminum phosphate 9004-54-0D, Dextran, DEAE conjugate 21645-51-2, Aluminum hydroxide, biological studies
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT 211431-63-9, Ribi Tri-Mix
RL: BSU (Biological study, unclassified); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(adjuvant; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT 1202438-30-9P 1202438-33-2P 1202438-37-6P 1202438-38-7P 1202438-39-8P 1202438-41-2P 1202438-45-6P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);

PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT 1202438-25-2P 1202438-26-3P 1202438-27-4P 1202438-28-5P
1202438-29-6P 1202438-31-0P 1202438-32-1P 1202438-34-3P
1202438-35-4P 1202438-36-5P 1202438-40-1P 1202438-42-3P
1202438-43-4P 1202438-44-5P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; Salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT 1202441-25-5 1202441-26-6 1202441-27-7 1202441-28-8 1202441-29-9
RL: PRP (Properties)
(unclaimed nucleotide sequence; salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

IT 951755-15-0 1202441-24-4 1202441-30-2
RL: PRP (Properties)
(unclaimed protein sequence; salmonella vectors comprising attenuated SPI-2, aroC and/or ssa genes and Chlamydia PmpG peptide as vaccines against chlamydial infection)

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ACCESSION NUMBER: 2009:1391464 HCAPLUS Full-text
DOCUMENT NUMBER: 151:526373
TITLE: B cells are essential for moderating the inflammatory response and controlling bacterial multiplication in a mouse model of vaccination against Chlamydophila abortus infection
AUTHOR(S): Buendia, Antonio J.; Ortega, Nieves; Caro, Maria R.; Del Rio, Laura; Gallego, Maria C.; Sanchez, Joaquin; Navarro, Jose A.; Cuello, Francisco; Salinas, Jesus
CORPORATE SOURCE: Departamento de Anatomia y Anatomia Patologica Comparadas, Facultad de Veterinaria, Universidad de Murcia, Murcia, 30100, Spain
SOURCE: Infection and Immunity (2009), 77(11), 4868-4876
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI B cells are essential for moderating the inflammatory response and controlling bacterial multiplication in a mouse model of vaccination against Chlamydophila abortus infection

AB The use of inactivated vaccines associated with suitable adjuvants has been demonstrated to confer a good level of protection against Chlamydophila abortus. However, the basis of the immune protective response induced by these vaccines has been poorly studied. B cells act as an immune regulatory population during primary infection by C. abortus. Thus, it was considered of interest to study the role of B cells in an infection after immunization with a killed vaccine. For this, C57BL/6 and B-cell-deficient mice were immunized with a killed vaccine against C. abortus using QS-21 as the adjuvant. After challenge, the course of infection was established by anal. of morbidity, C. abortus burden in the liver, and histopathol. changes. The immune response induced was studied by real-time PCR techniques. Expts. involving transfer of

immune serum from vaccinated or previously infected mice were also carried out. The lack of B cells reduced the protection conferred by the QS-21 adjuvant vaccine. Vaccinated B-cell-deficient mice showed a 1000-fold-greater bacterial burden in the liver than their wild-type counterparts. Obvious differences existed in the liver, where a severe neutrophilic reaction and extended areas of necrosis were observed with vaccinated B-cell-deficient mice. An anal. of the immune response pointed to a significant increase in inflammatory cytokines and chemokines and the deficient production of transforming growth factor beta. The transfer of antibodies restored the level of protection. This study demonstrates that B cells play a crucial role in controlling C. abortus multiplication and prevent an exacerbated inflammatory response.

ST B cell antibody cytokine chemokine vaccine Chlamydophila

IT CXC chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(CXCL10; role of B-cells, antibodies, and cytokines in moderating inflammatory response to Chlamydophila abortus challenge after protective vaccination)

IT Immunity
(immunol. memory; role of B-cells, antibodies, and cytokines in moderating inflammatory response to Chlamydophila abortus challenge after protective vaccination)

IT Macrophage
Neutrophil
T cell
(infiltration; role of B-cells, antibodies, and cytokines in moderating inflammatory response to Chlamydophila abortus challenge after protective vaccination)

IT Necrosis
(liver; role of B-cells, antibodies, and cytokines in moderating inflammatory response to Chlamydophila abortus challenge after protective vaccination)

IT Liver disease
(necrosis; role of B-cells, antibodies, and cytokines in moderating inflammatory response to Chlamydophila abortus challenge after protective vaccination)

IT B cell
Bacteremia
Chlamydophila abortus
Vaccines
(role of B-cells, antibodies, and cytokines in moderating inflammatory response to Chlamydophila abortus challenge after protective vaccination)

IT Antibodies and Immunoglobulins
Monocyte chemoattractant protein-1
Transforming growth factor β
Tumor necrosis factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(role of B-cells, antibodies, and cytokines in moderating inflammatory response to Chlamydophila abortus challenge after protective vaccination)

IT Ruminant
(role of B-cells, antibodies, and cytokines in moderating inflammatory response to Chlamydophila abortus challenge after protective vaccination in relation to)

IT Interferons
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(γ; role of B-cells, antibodies, and cytokines in moderating inflammatory response to Chlamydophila abortus challenge after protective vaccination)

L60 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2005:29227 HCAPLUS Full-text
DOCUMENT NUMBER: 142:133045
TITLE: Vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease
INVENTOR(S): Brownlie, John; Chalker, Victoria Jane; Erles, Kerstin
PATENT ASSIGNEE(S): The Royal Veterinary College, UK
SOURCE: PCT Int. Appl., 102 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005002618	A1	20050113	WO 2004-GB2865	20040701
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004253344	A1	20050113	AU 2004-253344	20040701
AU 2004253344	B2	20100429		
CA 2530797	A1	20050113	CA 2004-2530797	20040701
EP 1638599	A1	20060329	EP 2004-743211	20040701
EP 1638599	B1	20090916		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
BR 2004012194	A	20060822	BR 2004-12194	20040701
CN 1845754	A	20061011	CN 2004-80025001	20040701
JP 2007526884	T	20070920	JP 2006-518335	20040701
EP 2050463	A2	20090422	EP 2008-75914	20040701
EP 2050463	A3	20100120		
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, HR, LT, LV, MK				
NZ 544453	A	20090430	NZ 2004-544453	20040701
AT 442857	T	20091015	AT 2004-743211	20040701
NO 2005006207	A	20060131	NO 2005-6207	20051227
IN 2005DN06133	A	20071221	IN 2005-DN6133	20051229
KR 2006106809	A	20061012	KR 2006-7000080	20060102
MX 2006000278	A	20060407	MX 2006-278	20060105
ZA 2006000918	A	20070725	ZA 2006-918	20060131
US 20070098739	A1	20070503	US 2006-563199	20060901
US 20080220018	A1	20080911	US 2007-849931	20070904

PRIORITY APPLN. INFO.:	GB 2003-15323	A	20030701
	EP 2004-743211	A3	20040701
	WO 2004-GB2865	W	20040701
	US 2006-563199	A3	20060901

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease

AB A vaccine composition for vaccinating dogs comprising any one or more of (a) an agent capable of raising an immune response against Streptococcus equi sub species zooepidemicus in a dog, (b) an agent capable of raising an immune response against Mycoplasma cynos in a dog, and (c) an agent capable of raising an immune response against a Chlamydophila in a dog.

ST canine infectious respiratory disease vaccine antibody Streptococcus Mycoplasma Chlamydophila

IT rRNA
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(23 S; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Glycoproteins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(HE (hemagglutinin-esterase); vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Immunostimulants
(adjuvants; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Saliva
(anal.; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Infection
(bacterial; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Samples
(biol.; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Drug delivery systems
(carriers; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Adsorbents
(immunoadsorbents; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Diagnosis
(immunodiagnosis; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Immunoassay

(immunosorbent; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Respiratory system, disease
(infection, canine; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Bronchi
(lavage; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Diagnosis
(serodiagnosis; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Proteins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(spike; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Body fluid
(tracheal wash or bronchiolar lavage; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Canine adenovirus
(type 2; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Adoptive immunotherapy
Blood serum
Bordetella bronchiseptica
Canid herpesvirus 1
Canidae
Canine parainfluenza virus
Canine respiratory coronavirus
Canis familiaris
Chlamydia muridarum
Chlamydia pecorum
Chlamydia pneumoniae
Chlamydia suis
Chlamydia trachomatis
Chlamydophila
Chlamydophila abortus
Chlamydophila felis
Chlamydophila psittaci
DNA sequences
Drug delivery systems
Labels
Mycoplasma cynos
Streptococcus
Streptococcus equi zooepidemicus
Vaccines
Veterinary medicine
(vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Nucleic acids
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);

PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Antibodies and Immunoglobulins
Gene, animal
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Infection
(viral; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT Trachea (anatomical)
(wash; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT 827073-23-4P, DNA (chlamydophila 23 S rRNA gene) 827073-24-5P 827073-25-6P 827073-26-7P 827073-27-8P 827073-28-9P 827073-29-0P 827073-30-3P
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(nucleotide sequence; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

IT 827073-86-9 827073-87-0
RL: PRP (Properties)
(unclaimed sequence; vaccines comprising attenuated viruses and bacteria or antigen-encoding nucleic acids and antibodies for treating canine infectious respiratory disease)

L60 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2009:335335 HCAPLUS Full-text
DOCUMENT NUMBER: 150:350162
TITLE: Tissue targeted antigenic activation of the immune response to cancers
INVENTOR(S): Gunn, Harold David
PATENT ASSIGNEE(S): Can.
SOURCE: U.S. Pat. Appl. Publ., 71pp., Cont.-in-part of U.S. Ser. No. 553,972.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090074816	A1	20090319	US 2008-234569	20080919

WO 2005120560 A1 20051222 WO 2005-CA812 20050530
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 20070104733 A1 20070510 US 2006-553972 20061027

WO 2008049231 A1 20080502 WO 2007-CA1915 20071025
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:
US 2004-577206P P 20040607
WO 2005-CA812 A2 20050530
US 2006-553972 A2 20061027
WO 2007-CA1915 A2 20071025
CA 2006-2571805 A 20061220

TI Tissue targeted antigenic activation of the immune response to cancers

AB The invention provides in part methods of treating cancers of a specific organ or tissue by administering a composition that is antigenically specific for one or more microbes that are pathogenic in the specific organ or tissue in which the cancer is situated. The formulations of the invention thereby facilitate activation of a treatment response to a cancer in a particular tissue or organ. The compns. may for example include killed or attenuated microbial pathogens, and may be administered at sites distant from the cancer, for example the skin. In some embodiments, microbial species of endogenous flora that are known to cause infection in the relevant organ or tissue may be used in the formulation of the antigenic compns. In alternative embodiments, exogenous microbial pathogens that are known to cause infection in the relevant organ or tissue may be used in the formulation of the antigenic compns. The administration of the immunogenic compns. may be repeated relatively frequently over a relatively long period of time. In embodiments for intradermal or s.c. injection, dosages may be adjusted so that injections reproduce a consistent visible delayed inflammatory immune reaction at the successive site or sites of administration.

IT Colon
Duodenum
Ileum
Jejunum
Mouth
Reproductive system
Respiratory system
Skin
Stomach
Urinary system

Vagina
(bacteria of; tissue targeted antigenic activation of the immune response to cancers)
IT Streptococcus
(group C; tissue targeted antigenic activation of the immune response to cancers)
IT Streptococcus
(group G; tissue targeted antigenic activation of the immune response to cancers)
IT Heart disease
(heart neoplasm; tissue targeted antigenic activation of the immune response to cancers)
IT Nervous system disease
(meningeal, neoplasm; tissue targeted antigenic activation of the immune response to cancers)
IT Carcinoma
(nasopharyngeal; tissue targeted antigenic activation of the immune response to cancers)
IT Pharynx, neoplasm
(nasopharynx, carcinoma; tissue targeted antigenic activation of the immune response to cancers)
IT Anus
Penis
Tonsil
Trachea
Ureter
(neoplasm; tissue targeted antigenic activation of the immune response to cancers)
IT Body, anatomical
(perineum, neoplasm; tissue targeted antigenic activation of the immune response to cancers)
IT Pharmaceutical injections
(s.c. injections; tissue targeted antigenic activation of the immune response to cancers)
IT Body, anatomical
(sinus, neoplasm; tissue targeted antigenic activation of the immune response to cancers)
IT Intestinal neoplasm
(small intestinal neoplasm; tissue targeted antigenic activation of the immune response to cancers)
IT Animal tissue, disease
(soft, neoplasm; tissue targeted antigenic activation of the immune response to cancers)
IT Neoplasm
(soft-tissue; tissue targeted antigenic activation of the immune response to cancers)
IT Adenoviridae
Adrenal gland, neoplasm
Animal virus
Anti-inflammatory agents
B19 virus
Bacillus cereus
Bacterial infection
Bacteroides
Bacteroides fragilis
Biliary tract, neoplasm
Bladder, neoplasm
Bone neoplasm
Bordetella pertussis
Borrelia burgdorferi

Brain, neoplasm
Bronchi, neoplasm
Cervix, neoplasm
Chlamydia trachomatis
Chlamydophila pneumoniae
Clostridium
Clostridium perfringens
Colon neoplasm
Corynebacterium diphtheriae
Corynebacterium ulcerans
Diagnosis
Epitopes
Escherichia coli
Esophagus, neoplasm
Eye, neoplasm
Fusobacterium
Gallbladder, neoplasm
Gardnerella vaginalis
Haemophilus influenzae
Head and Neck, neoplasm
Human
Human coxsackievirus
Human echovirus
Human herpesvirus
Human herpesvirus 3
Human herpesvirus 4
Human herpesvirus 5
Inflammation
Influenza virus
Intestinal bacteria
Kidney, neoplasm
Klebsiella pneumoniae
Larynx, neoplasm
Liver, neoplasm
Lung, neoplasm
Lymph node, neoplasm
Mammary gland, neoplasm
Measles virus
Metastasis
Moraxella catarrhalis
Mouth, neoplasm
Mycobacterium tuberculosis
Mycoplasma pneumoniae
Neisseria meningitidis
Neoplasm
Nonsteroidal anti-inflammatory drugs
Ovary, neoplasm
Pancreas, neoplasm
Peptococcus
Peptostreptococcus
Peritoneum, neoplasm
Pleura, neoplasm
Prevotella melaninogenica
Prostate gland, neoplasm
Proteus (bacterium)
Pseudomonas aeruginosa
Rectal neoplasm
Rubella virus
Salivary gland, neoplasm
Salmonella

Serratia
Shigella flexneri
Skin, neoplasm
Spinal cord, neoplasm
Spleen, neoplasm
Staphylococcus aureus
Stomach, neoplasm
Streptococcus agalactiae
Streptococcus group A
Streptococcus group B
Streptococcus milleri
Streptococcus pyogenes
Testis, neoplasm
Thyroid gland, neoplasm
Treponema pallidum
Uterus, neoplasm
Vaccinia virus
Vagina, neoplasm
Viral infection
Yersinia enterocolitica
Yersinia pseudotuberculosis
(tissue targeted antigenic activation of the immune response to cancers)

IT Antigens
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tissue targeted antigenic activation of the immune response to cancers)

IT Neoplasm
(tracheal; tissue targeted antigenic activation of the immune response to cancers)

IT Vaccines
(tumor; tissue targeted antigenic activation of the immune response to cancers)

IT Immunization
(vaccination; tissue targeted antigenic activation of the immune response to cancers)

IT Antitumor agents
(vaccines; tissue targeted antigenic activation of the immune response to cancers)

IT Female reproductive system
(vulva, neoplasm; tissue targeted antigenic activation of the immune response to cancers)

L60 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2009:511100 HCAPLUS Full-text
DOCUMENT NUMBER: 151:569204
TITLE: A chlamydial type III-secreted effector protein (Tarp) is predominantly recognized by antibodies from humans infected with Chlamydia trachomatis and induces protective immunity against upper genital tract pathologies in mice
AUTHOR(S): Wang, Jie; Chen, Lili; Chen, Fan; Zhang, Xiaoyun; Zhang, Yingqian; Baseman, Joel; Perdue, Sondra; Yeh, I.-Tien; Shain, Rochelle; Holland, Martin; Bailey, Robin; Mabey, David; Yu, Ping; Zhong, Guangming
CORPORATE SOURCE: Department of Microbiology and Immunology, University of Texas Health Science Center at San Antonio, San Antonio, TX, 78229, USA
SOURCE: Vaccine (2009), 27(22), 2967-2980

CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
REFERENCE COUNT: 86 THERE ARE 86 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Chlamydia trachomatis genome is predicted to encode a type III secretion system consisting of more than 40 open reading frames (ORFs). To test whether these ORFs are expressed and immunogenic during chlamydial infection in humans, we expressed 55 chlamydial ORFs covering all putative type III secretion components plus control mols. as fusion proteins and measured the reactivity of these fusion proteins with antibodies from patients infected with C. trachomatis in the urogenital tract (24 antisera) or in the ocular tissue (8 antisera). Forty-five of the 55 proteins were recognized by at least 1 of the 32 human antisera, suggesting that these proteins are both expressed and immunogenic during chlamydial infection in humans. Tarp, a putative type III secretion effector protein, was identified as a novel immunodominant antigen due to its reactivity with the human antisera at high frequency and titer. The expression and immunogenicity of Tarp were confirmed in cell culture and mouse systems. Tarp was mainly associated with the infectious form of chlamydial organisms and became undetectable between 13 and 24 h during the infection cycle in cell culture. Mice intravaginally infected with C. muridarum developed Tarp-specific humoral and cellular immune responses. More importantly, immunization of mice with Tarp induced Th1-dominant immunity that significantly reduced the shedding of live organisms from the lower genital tract and attenuated inflammatory pathologies in the fallopian tube tissues. These observations have demonstrated that Tarp, an immunodominant antigen identified by human antisera, can induce protective immunity against chlamydial infection and pathol. in mice.

IT Chlamydia muridarum
Chlamydia trachomatis
Human
Immune adjuvants
T cell
Vaccines
(chlamydial type III-secreted effector protein (Tarp) is predominantly recognized by antibodies from humans infected with Chlamydia trachomatis)

L60 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2009:376725 HCAPLUS Full-text
DOCUMENT NUMBER: 153:229263
TITLE: Induction of a protective immune response against swine Chlamydophila abortus infection in mice following co-vaccination of omp-1 DNA with recombinant MOMP
AUTHOR(S): Zhang, F.; Li, S.; Yang, J.; Yang, L.; He, C.
CORPORATE SOURCE: Key Lab of Preventive Veterinary Medicine of Chinese Ministry of Agriculture, China Agricultural University, Beijing, Peop. Rep. China
SOURCE: Zoonoses and Public Health (2009), 56(2), 71-76
CODEN: ZPHOAH; ISSN: 1863-1959
PUBLISHER: Wiley-Blackwell
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Induction of a protective immune response against swine

Chlamydophila abortus infection in mice following co-vaccination of omp-1 DNA with recombinant MOMP

AB Chlamydophila abortus is the causative agent of abortion in pigs and pregnant women. Seroconversion rates were arranged from 11% to 80% in piglets and sows in China. These very high rates illustrate the scale of the problem in China and highlight the urgent need for the development of a C. abortus vaccine. An efficacious anti-chlamydial vaccine should induce not only strong mucosal and systemic T-helper type 1 (Th1) immune response but also give a humoral response that enhances Th1 activation following infection. To evaluate an active immune response of a combination of the major outer membrane protein (MOMP) DNA- and protein-based vaccines, 54 BALB/c mice were randomly assigned to six groups and inoculated i.m. with: (i) 100 μg pcDNA::MOMP, (ii) 10 μg r-MOMP, (iii) primed with 100 μg pcDNA::MOMP and boosted with 10 μg r-MOMP, (iv) primed-boosted with a combination of pcDNA::MOMP and r-MOMP simultaneously, (v) live-attenuated 1B vaccine, (vi) 100 μg pcDNA3.1 vector. All animals were vaccinated two times at 14 days intervals. Results showed that mice given DNA and r-MOMP induced higher antibody levels, higher T cells proliferation and an elevated level of chlamydial clearance in spleen, which was equivalent to the clearance of 1B vaccine. Mice administrated the DNA-primed/MOMP-boosted approach elicited moderate antibody levels, less T-lymphocyte proliferation and lower chlamydial clearance as compared with 1B vaccine. Co-immunization with DNA- and r-MOMP vaccine may provide novel ways for active immunization strategy against swine C. abortus.

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG1; induction of protective immune response against swine Chlamydophila abortus infection in mice following co-vaccination of omp-1 DNA with recombinant MOMP)

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG2a; induction of protective immune response against swine Chlamydophila abortus infection in mice following co-vaccination of omp-1 DNA with recombinant MOMP)

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG2b; induction of protective immune response against swine Chlamydophila abortus infection in mice following co-vaccination of omp-1 DNA with recombinant MOMP)

IT Porins
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(MOMP (major outer membrane protein); induction of protective immune response against swine Chlamydophila abortus infection in mice following co-vaccination of omp-1 DNA with recombinant MOMP)

IT Outer membrane proteins
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(OMP1; induction of protective immune response against swine Chlamydophila abortus infection in mice following co-vaccination of omp-1 DNA with recombinant MOMP)

IT Helper T cell
(Th1 cell; induction of protective immune response against swine Chlamydophila abortus infection in mice following co-vaccination of omp-1 DNA with recombinant MOMP)

IT Abortion
Cell proliferation
Chlamydophila abortus
Spleen

Sus scrofa domestica
Swine
T cell
Vaccines
(induction of protective immune response against swine Chlamydophila abortus infection in mice following co-vaccination of omp-1 DNA with recombinant MOMP)

IT DNA
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(induction of protective immune response against swine Chlamydophila abortus infection in mice following co-vaccination of omp-1 DNA with recombinant MOMP)

L60 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2009:572540 HCAPLUS Full-text
DOCUMENT NUMBER: 151:31315
TITLE: A vault nanoparticle vaccine induces protective mucosal immunity
AUTHOR(S): Champion, Cheryl I.; Kickhoefer, Valerie A.; Liu, Guangchao; Moniz, Raymond J.; Freed, Amanda S.; Bergmann, Liisa L.; Vaccari, Dana; Raval-Fernandes, Sujna; Chan, Ann M.; Rome, Leonard H.; Kelly, Kathleen A.
CORPORATE SOURCE: Department of Pathology and Laboratory Medicine, David Geffen School of Medicine at UCLA, University of California Los Angeles, Los Angeles, CA, USA
SOURCE: PLoS One (2009), 4(4), No pp. given
CODEN: POLNCL; ISSN: 1932-6203
URL: http://www.plosone.org/article/fetchObjectAttachment.action?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0005409&representation=PDF
PUBLISHER: Public Library of Science
DOCUMENT TYPE: Journal; (online computer file)
LANGUAGE: English
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Generation of robust cell-mediated immune responses at mucosal surfaces while reducing overall inflammation is a primary goal for vaccination. Here we report the use of a recombinant nanoparticle as a vaccine delivery platform against mucosal infections requiring T cell-mediated immunity for eradication. We encapsulated an immunogenic protein, the major outer membrane protein (MOMP) of Chlamydia muridarum, within hollow, vault nanocapsules (MOMP-vaults) that were engineered to bind IgG for enhanced immunity. Intranasal immunization (i.n) with MOMP-vaults induced anti-chlamydial immunity plus significantly attenuated bacterial burden following challenge infection. Vault immunization induced anti-chlamydial immune responses and inflammasome formation but did not activate Toll-like receptors. Moreover, MOMP-vault immunization enhanced microbial eradication without the inflammation usually associated with adjuvants. Vault nanoparticles containing immunogenic proteins delivered to the respiratory tract by the i.n. route can act as "smart adjuvants" for inducing protective immunity at distant mucosal surfaces while avoiding destructive inflammation.

IT Antibacterial agents
Bacterial infection
Chlamydia muridarum
Dendritic cell
Pharmaceutical nanocapsules
Pharmaceutical nanoparticles
T cell

(vault nanoparticle vaccine induces protective mucosal immunity)

L60 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2008:529353 HCAPLUS Full-text
DOCUMENT NUMBER: 148:493801
TITLE: Attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers
INVENTOR(S): Gunn, Harold David
PATENT ASSIGNEE(S): Can.
SOURCE: PCT Int. Appl., 151pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008049231	A1	20080502	WO 2007-CA1915	20071025
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20070104733	A1	20070510	US 2006-553972	20061027
CA 2571805	A1	20080427	CA 2006-2571805	20061220
AU 2007308721	A1	20080502	AU 2007-308721	20071025
EP 2094293	A1	20090902	EP 2007-816065	20071025
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR				
US 20090074816	A1	20090319	US 2008-234569	20080919
CN 101636176	A	20100127	CN 2007-80048022	20090624

PRIORITY APPLN. INFO.:		
US 2006-553972	A	20061027
CA 2006-2571805	A	20061220
US 2004-577206P	P	20040607
WO 2005-CA812	A2	20050530
WO 2007-CA1915	W	20071025

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers

AB The invention provides in part methods of treating cancers of a specific organ or tissue by administering a composition that is antigenically specific for one or more microbes that are pathogenic in the specific organ or tissue in which the cancer is situated. The formulations of the invention thereby facilitate activation of a treatment response to a cancer in a particular tissue or organ. The compns. may for example include killed or attenuated microbial pathogens, and may be administered at sites distant from the cancer, for example the skin. In some embodiments, microbial species of endogenous flora that are known to cause infection in the relevant organ or tissue may be

used in the formulation of the antigenic compns. In alternative embodiments, exogenous microbial pathogens that are known to cause infection in the relevant organ or tissue may be used in the formulation of the antigenic compns. The administration of the immunogenic compns. may be repeated relatively frequently over a relatively long period of time. In embodiments for intradermal or s.c. injection, dosages may be adjusted so that injections reproduce a consistent visible delayed inflammatory immune reaction at the successive site or sites of administration.

IT Adrenal gland
Anus
Biliary tract
Bladder
Blood vessel
Bone
Brain
Bronchi
Cervix
Colon
Esophagus
Eye
Gallbladder
Heart
Kidney
Larynx
Liver
Lung
Lymph node
Mammary gland
Meninges
Mouth
Ovary
Pancreas
Penis
Pleura
Prostate gland
Rectum
Salivary gland
Skin
Small intestine
Spinal cord
Spleen
Stomach
Testis
Thyroid gland
Tonsil
Trachea
Ureter
Uterus
Vagina
(-specific microbes; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Streptococcus
(Viridans-group; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Abdomen
(abdominal cavity, lymph node-specific microbes; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune

response to treat cancers)
IT Reproductive system
(adnexae-specific microbes; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)
IT Actinomyces
Acute myeloid leukemia
Adenoviridae
Animal organ
Animal tissue
Animal virus
Anti-inflammatory agents
Antioxidants
Astrovirus
B19 virus
BK virus
Bacillus cereus
Bacteroides
Bacteroides fragilis
Bacteroides thetaiotaomicron
Bacteroides vulgatus
Bordetella pertussis
Borrelia burgdorferi
Bunyavirus
Calicivirus
Carcinoma
Cervix, neoplasm
Chemotherapy
Chlamydia trachomatis
Chlamydophila pneumoniae
Clostridium
Clostridium difficile
Clostridium perfringens
Coagulase-negative Staphylococcus
Colon neoplasm
Coronavirus
Corynebacterium diphtheriae
Corynebacterium jeikeium
Cytomegalovirus
Dermatitis
Diagnosis
Drug delivery systems
Drugs
Enterobacter
Enterococcus
Enterococcus faecalis
Enterovirus
Escherichia coli
Eubacteria
Flavivirus
Fusobacterium
Fusobacterium nucleatum
Gardnerella vaginalis
Haemophilus influenzae
Helicobacter pylori
Hepatitis A virus
Hepatitis B virus
Human
Human coxsackievirus

Human echovirus
Human herpesvirus
Human herpesvirus 2
Human herpesvirus 3
Human herpesvirus 4
Human metapneumovirus
Human parainfluenza virus
Human poliovirus
Inflammation
Influenza virus
Klebsiella
Klebsiella pneumoniae
Klebsiella pneumoniae ozaenae
Lactobacillus casei
Legionella
Leptospirosis
Listeria monocytogenes
Lung, neoplasm
Lymphocytic choriomeningitis virus
Mammalia
Measles virus
Melanoma
Metastasis
Microorganism
Moraxella catarrhalis
Morganella (bacterium)
Multiple myeloma
Mumps virus
Mycobacterium BCG
Mycobacterium avium
Mycobacterium tuberculosis
Mycobacterium vaccae
Mycoplasma pneumoniae
Neisseria gonorrhoeae
Neisseria meningitidis
Neoplasm
Nocardia rubra
Non-small-cell lung carcinoma
Nonsteroidal anti-inflammatory drugs
Norovirus
Oral drug delivery systems
Ovary, neoplasm
Pathogen
Peptococcus
Peptostreptococcus
Pharmaceutical injections
Prevotella
Prevotella melaninogenica
Proteus (bacterium)
Proteus mirabilis
Proteus vulgaris
Providencia
Pseudomonas
Pseudomonas aeruginosa
Rabies virus
Respiratory syncytial virus
Rhinovirus
Rotavirus
Rubella virus
Salmonella

Salmonella enteritidis
Salmonella typhi
Serratia
Shigella flexneri
Staphylococcus
Staphylococcus aureus
Stomach, neoplasm
Streptococcus agalactiae
Streptococcus alfa
Streptococcus anaerobius
Streptococcus anginosus
Streptococcus bovis
Streptococcus constellatus
Streptococcus group A
Streptococcus group B
Streptococcus intermedius
Streptococcus mitior
Streptococcus mutans
Streptococcus pneumoniae
Streptococcus pyogenes
Streptococcus salivarius
Streptococcus sanguinis
Treponema pallidum
Vaccinia virus
Veterinary medicine
Yersinia enterocolitica
Yersinia pseudotuberculosis
(attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Antigens
Tumor antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Digestive tract
Duodenum
Ileum
Jejunum
Reproductive system
Respiratory system
(bactereial flora; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Metastasis
(bone neoplasm; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Carcinoma
Colon neoplasm
(colon carcinoma, metastasis; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Metastasis
(colon carcinoma; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Streptococcus
(group C; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)
IT Streptococcus
(group G; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)
IT Animal tissue
(inguinal lymph node-specific microbes; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)
IT Drug delivery systems
(intradermal; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)
IT Metastasis
(kidney neoplasm; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)
IT Metastasis
(liver neoplasm; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)
IT Metastasis
(lung neoplasm; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)
IT Metastasis
(lymph node neoplasm; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)
IT Abdomen
Arm
Head and Neck
Leg
(lymph node-specific microbes; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)
IT Metastasis
(mammary gland neoplasm; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)
IT Bone neoplasm
Kidney, neoplasm
Liver, neoplasm
Lung, neoplasm
Lymph node, neoplasm
Mammary gland, neoplasm
Ovary, neoplasm
Pancreas, neoplasm
Skin, neoplasm
(metastasis; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)
IT Pharynx
(nasopharynx, -specific microbes; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for

targeted antigenic activation of the immune response to treat cancers)

IT Lymphoma
(nodular; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Anaerobic bacteria
Vaccines
(oral; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Metastasis
(ovary neoplasm; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Body, anatomical
(pelvis, cancer; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Abdomen, neoplasm
(perineum metastasis; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Body, anatomical
(perineum, -specific microbes; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Microorganism
(retroperitoneal area-specific; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Pharmaceutical injections
(s.c. injections; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Body, anatomical
(sinus, -specific microbes; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Animal tissue
(soft, -specific microbes; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Vaccines
(tumor; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Antitumor agents
(vaccines; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT Female reproductive system
(vulva, -specific microbes; attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT 140207-01-8, Respivax
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

IT 50-81-7, Vitamin C, biological studies 53-03-2, Prednisone 53-86-1, Indomethacin 148-82-3, Melphalan 1406-16-2, Vitamin D 1406-18-4, Vitamin E 22204-53-1, Naprosyn
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(attenuated organ- or tissue-specific microbial pathogen and antiinflammatory agent for targeted antigenic activation of the immune response to treat cancers)

L60 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2008:484047 HCAPLUS Full-text
DOCUMENT NUMBER: 148:515683
TITLE: Chlamydia muridarum Evades Growth Restriction by the IFN-γ-Inducible Host Resistance Factor Irgb10
AUTHOR(S): Coers, Joern; Bernstein-Hanley, Isaac; Grotsky, David; Parvanova, Iana; Howard, Jonathan C.; Taylor, Gregory A.; Dietrich, William F.; Starnbach, Michael N.
CORPORATE SOURCE: Department of Microbiology and Molecular Genetics, Harvard Medical School, Boston, MA, 02115, USA
SOURCE: Journal of Immunology (2008), 180(9), 6237-6245
CODEN: JOIMA3; ISSN: 0022-1767
PUBLISHER: American Association of Immunologists
DOCUMENT TYPE: Journal
LANGUAGE: English
OS.CITING REF COUNT: 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)
REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Chlamydia muridarum Evades Growth Restriction by the IFN-γ-Inducible Host Resistance Factor Irgb10

AB Chlamydiae are obligate intracellular bacterial pathogens that exhibit a broad range of host tropism. Differences in host tropism between Chlamydia species have been linked to host variations in IFN-γ-mediated immune responses. In mouse cells, IFN-γ can effectively restrict growth of the human pathogen Chlamydia trachomatis but fails to control growth of the closely related mouse pathogen Chlamydia muridarum. The ability of mouse cells to resist C. trachomatis replication is largely dependent on the induction of a family of IFN-γ-inducible GTPases called immunity-related GTPases or IRGs. In this study we demonstrate that C. muridarum can specifically evade IRG-mediated host resistance. It has previously been suggested that C. muridarum inactivates the IRG protein Irga6 (Iigp1) to dampen the murine immune response. However, we show that Irga6 is dispensable for the control of C. trachomatis replication. Instead, an effective IFN-γ response to C. trachomatis requires the IRG proteins Irgm1 (Lrg47), Irgm3 (Igtp), and Irgb10. Ectopic expression of Irgb10 in the absence of IFN-γ is sufficient to reduce intracellular growth of C. trachomatis but fails to restrict growth of C. muridarum, indicating that C. muridarum can specifically evade Irgb10-driven host responses. Importantly, we find that Irgb10 protein intimately assocs. with inclusions harboring C. trachomatis but is absent from inclusions formed by C. muridarum. These data suggest that C. muridarum has evolved a mechanism to escape the murine IFN-γ response by restricting access of Irgb10 and possibly other IRG proteins to the inclusion.

IT Chlamydia muridarum

Chlamydia trachomatis
(Chlamydia muridarum evades growth restriction by
the interferon-γ-inducible host resistance factor Irgb10 protein)
IT Inclusion bodies
(Chlamydia muridarum evades growth restriction by
the interferon-γ-inducible host resistance factor Irgb10 protein
in relation to inclusion bodies)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Irgb10; Chlamydia muridarum evades growth
restriction by the interferon-γ-inducible host resistance factor
Irgb10 protein)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Irgb1; Chlamydia muridarum evades growth
restriction by the interferon-γ-inducible host resistance factor
Irgb10 protein)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Irgb3; Chlamydia muridarum evades growth
restriction by the interferon-γ-inducible host resistance factor
Irgb10 protein)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Irgb6; Chlamydia muridarum evades growth
restriction by the interferon-γ-inducible host resistance factor
Irgb10 protein)
IT Immunity
(antibacterial; Chlamydia muridarum evades growth
restriction by the interferon-γ-inducible host resistance factor
Irgb10 protein)
IT Interferons
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(γ; Chlamydia muridarum evades growth
restriction by the interferon-γ-inducible host resistance factor
Irgb10 protein)

L60 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2009:36506 HCAPLUS Full-text
DOCUMENT NUMBER: 151:170688
TITLE: Immunization with chlamydial plasmid protein pORF5 DNA vaccine induces protective immunity against genital chlamydial infection in mice
AUTHOR(S): Li, ZhongYu; Wang, ShiPing; Wu, YiMou; Zhong, GuangMing; Chen, Ding
CORPORATE SOURCE: Xiangya School of Medicine, Central South University, Changsha, 410078, Peop. Rep. China
SOURCE: Science in China, Series C: Life Sciences (2008), 51(11), 973-980
CODEN: SCCLFO; ISSN: 1006-9305
PUBLISHER: Science in China Press
DOCUMENT TYPE: Journal
LANGUAGE: English
OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB To validate the immune protective efficacy of pORF5 DNA vaccine and to analyze potential mechanisms related to this protection. In this study, pORF5 DNA

vaccine was constructed and evaluated for its protective immunity in a mouse model of genital chlamydial infection. Groups of BALB/c mice were immunized intranasally with pORF5 DNA vaccine. Humoral and cell mediated immune responses were evaluated. The clearance ability of chlamydial challenge from the genital tract and the chlamydia-induced upper genital tract gross pathol. and histopathol. characterization were also detected. The results showed that the total and the IgG2a anti-pORF5 antibody levels in serum were significantly elevated after pcDNA3.1-pORF5 vaccination, as were the total antibody and IgA levels in vaginal fluids. PcDNA3.1-pORF5 induced a significantly high level of Th1 response as measured by robust gamma interferon (IFN-γ). Minimal IL-4 was produced by immune T cells in response to the re-stimulation with pORF5 protein or the inactive elementary body in vitro. PcDNA3.1-pORF5-vaccinated mice displayed significantly reduced bacterial shedding upon a chlamydial challenge and an accelerated resolution of infection. 100% Of pcDNA3.1-pORF5 vaccinated mice successfully resolved the infection by day 24. PcDNA3.1-pORF5-immunized mice also exhibited protection against pathol. consequences of chlamydial infection. The stimulated index was significantly higher than that of mice immunized with pcDNA3.1 and PBS ($P<0.05$). Together, these results demonstrated that immunization with pORF5 DNA vaccine is a promising approach for eliciting a protective immunity against a genital chlamydial challenge.

IT Cell proliferation
Chlamydia muridarum
Chlamydia trachomatis
Fibrosis
Lymphocyte
Vaccines
(immunization with chlamydial plasmid protein pORF5 DNA vaccine induced protective immunity against genital chlamydial infection in mice)

L60 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2008:971649 HCAPLUS Full-text
DOCUMENT NUMBER: 150:327523
TITLE: Induction of immune responses against Chlamydophila abortus using bacteriophage-mediated DNA vaccination
AUTHOR(S): Liu, Wei; Zhang, Chang; Zhang, Fa-ming; Li, Ying-chao; Yang, Jun-jing; Ling, Yong; Yuan, Ji-lei; He, Cheng
CORPORATE SOURCE: Veterinary Medicine College, China Agricultural University, Beijing, 100193, Peop. Rep. China
SOURCE: Zhongguo Nongye Daxue Xuebao (2008), 13(4), 82-86
CODEN: ZNDXAA; ISSN: 1007-4333
PUBLISHER: Zhongguo Nongye Daxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

TI Induction of immune responses against Chlamydophila abortus using bacteriophage-mediated DNA vaccination

AB Omp-1 gene coding major outer membrane protein of Chlamydi ophila has been identified as one of the most important protection antigens of Chlamydi ophila and plays an important role in cellular immunization of Chlamydia abortus. NM1149 phage vector, a new vaccine delivery system, is able to carry a large gene fragment and its capsid protein can protect the target gene from degradation In the current study, Omp-1 gene was constructed into NM1149, and a pos. bacteriophage was determined and proliferated. Twenty-seven BALB/c mice were randomly assigned to three groups and inoculated i.m. with: 1 10 g (1.5 × 105 pfu) live-attenuated vaccine; 2 250 ng (5 × 1011 pfu) phage vaccine based on omp-1 gene, and 3 250 ng (5 × 1011 pfu) phage vector. All animals were vaccinated at 14 day intervals on day 2, 16, and 30. Antibody levels against major outer membrane and T-lymphocyte proliferation were detected by

ELISA and MTT methods. Results showed that mice administrated with the phage vaccine developed higher T lymphocyte proliferation levels while those given the live-attenuated 1B vaccine elicited higher antibody levels and less T lymphocyte proliferation. Immunization with phage vaccines may provide a novel way to improve protection against Chlamydophila abortus infection in small animals.

ST major outer membrane protein NM1149 phage immunization; Chlamydophila abortus DNA bacterin

IT Cell proliferation
Chlamydophila abortus
Enzyme-linked immunosorbent assay
Immunization
Polymerase chain reaction
T cell
Vaccines
(induction of immune responses against Chlamydophila abortus using bacteriophage-mediated DNA vaccination)

IT Antibodies and Immunoglobulins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(induction of immune responses against Chlamydophila abortus using bacteriophage-mediated DNA vaccination)

IT Gene, microbial
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(omp1; induction of immune responses against Chlamydophila abortus using bacteriophage-mediated DNA vaccination)

IT 80498-17-5, Restriction endonuclease, EcoRI 81295-22-9, Restriction endonuclease, HindIII
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(induction of immune responses against Chlamydophila abortus using bacteriophage-mediated DNA vaccination)

L60 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2007:162221 HCAPLUS Full-text
TITLE: Therapeutic Chlamydophila abortus and C. pecorum vaccination transiently reduces bovine mastitis associated with Chlamydophila infection
AUTHOR(S): Biesenkamp-Uhe, Carolin; Li, Yihang; Hehnen, Hans-Robert; Sachse, Konrad; Kaltenboeck, Bernhard
CORPORATE SOURCE: Bayer HealthCare AG., Cologne, D-50739, Germany
SOURCE: Infection and Immunity (2007), 75(2), 870-877
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Therapeutic Chlamydophila abortus and C. pecorum vaccination transiently reduces bovine mastitis associated with Chlamydophila infection

AB Infections with Chlamydophila abortus and C. pecorum are highly prevalent in cattle and have been associated with bovine mastitis. A prospective cohort study was conducted with a herd of 140 Holstein dairy cows to investigate the

influence of Chlamydophila infection on subclin. inflammation of the bovine mammary gland as characterized by somatic cell nos. in milk. PCR detection of C. abortus and low serum antibody levels against Chlamydophila spp. were significantly associated with subclin. mastitis. To examine the effect of the infection by response modification, immune perturbation was done by two s.c. administrations of an exptl. vaccine preparation of inactivated C. abortus and C. pecorum elementary bodies. Vaccination against Chlamydophila highly significantly decreased milk somatic cell nos., thus reducing bovine mastitis, and increased antibody levels against Chlamydophila but did not eliminate shedding of C. abortus in milk as detected by PCR. The protective effect peaked at 11 wk after vaccination and lasted for a total of 14 wk. Vaccination with the Chlamydophila vaccine, a mock vaccine, or a combination vaccine against bovine viral diseases highly significantly increased C. abortus shedding in milk for 1 wk, presumably mediated by the vaccine adjuvant. In summary, this study shows an etiol. involvement of the widespread Chlamydophila infections in bovine mastitis, a herd disease of critical importance for the dairy industry. Furthermore, this investigation shows the potential for temporary improvement of chlamydial disease by therapeutic vaccination. Chlamydophila vaccination of cattle might serve as a testing ground for vaccines against human chlamydial infections.

L60 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2007:419467 HCAPLUS Full-text
DOCUMENT NUMBER: 147:341867
TITLE: Role of polymorphonuclear neutrophils (PMNs) and NK cells in the protection conferred by different vaccines against Chlamydophila abortus infection
AUTHOR(S): Ortega, N.; Caro, M. R.; Buendia, A. J.; Gallego, M. C.; Del Rio, L.; Martinez, C. M.; Nicolas, L.; Cuello, F.; Salinas, J.
CORPORATE SOURCE: Departamento de Sanidad Animal, Facultad de Veterinaria, Universidad de Murcia, Murcia, Spain
SOURCE: Research in Veterinary Science (2007), 82(3), 314-322
CODEN: RVTSA9; ISSN: 0034-5288
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Role of polymorphonuclear neutrophils (PMNs) and NK cells in the protection conferred by different vaccines against Chlamydophila abortus infection

AB Ovine enzootic abortion (OEA) is caused by Chlamydophila abortus, an intracellular bacterium which acts by infecting the placenta, causing abortion in the last term of gestation. The main prevention strategy against OEA is the vaccination of flocks. An effective vaccine against C. abortus must induce a Th1-like specific immune response, which is characterized by the early production of IFN-γ and the activation of CD8+T cells. Moreover, vaccine effectiveness could be modulated by the functioning of the innate immunity. The purpose of this study was to ascertain how polymorphonuclear neutrophils (PMNs) and NK cells might influence vaccine-induced protection. The live attenuated 1B vaccine and two inactivated exptl. vaccines, adjuvated with aluminum hydroxide (AH) or QS-21 (QS), were used in PMN-depleted or NK cell-depleted mice. For PMN depletion, RB6-8C5 monoclonal antibody, which recognizes GR1+receptors (Robben, P.M., LaRegina, M., Kuziel, W.A., Sibley, L.D. 2005. Recruitment of Gr-1+ monocytes is essential for control of acute toxoplasmosis. The Journal of Exptl. Medicine 201, 1761-1769.) was used, while for NK cell-depletion the anti-asialo GM1 polyclonal antibody was used. The depletion of PMNs caused 100% mortality in non-vaccinated mice (NV) and 60%

mortality in the AH-vaccinated mice by day 10 p.i., while both groups showed a significant increase in their bacterial burden in the liver by day 4 p.i. The depletion of NK cells caused mortality only in the NV group (50% by day 10 p.i.), although this group and the 1B vaccinated mice showed an increased bacterial burden in the liver at day 4 p.i. Our results suggest that the importance of PMNs in inactivated vaccines depends on the adjuvant chosen. The results also demonstrated that the importance of NK cells is greater in live vaccines than in inactivated vaccines.

ST vaccine QS21 aluminum hydroxide neutrophil natural killer cell Chlamydophila

IT Lymphocyte
(natural killer cell; role of polymorphonuclear neutrophils and natural killer cells in the protection conferred by different vaccine against Chlamydophila abortus infection)

IT Bacterial infection
Chlamydophila abortus
Liver
Neutrophil
(role of polymorphonuclear neutrophils and natural killer cells in the protection conferred by different vaccine against Chlamydophila abortus infection)

IT Vaccines
(role of polymorphonuclear neutrophils and natural killer cells in the protection conferred by different vaccines against Chlamydophila abortus infection)

IT 21645-51-2, Aluminum hydroxide, biological studies 141256-04-4, QS-21
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(role of polymorphonuclear neutrophils and natural killer cells in the protection conferred by different vaccine against Chlamydophila abortus infection)

L60 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2007:140894 HCAPLUS Full-text
DOCUMENT NUMBER: 146:227428
TITLE: Genetic profiling of dendritic cells exposed to live- or ultraviolet-irradiated Chlamydia muridarum reveals marked differences in CXC chemokine profiles
AUTHOR(S): Zaharik, Michelle L.; Nayar, Tarun; White, Rick; Ma, Caixia; Vallance, Bruce A.; Straka, Nadine; Jiang, Xiaozhou; Rey-Ladino, Jose; Shen, Caixia; Brunham, Robert C.
CORPORATE SOURCE: University of British Columbia Centre for Disease Control, University of British Columbia, Vancouver, BC, Can.
SOURCE: Immunology (2007), 120(2), 160-172
CODEN: IMMUAM; ISSN: 0019-2805
PUBLISHER: Blackwell Publishing Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)
REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Genetic profiling of dendritic cells exposed to live- or ultraviolet-irradiated Chlamydia muridarum reveals marked differences in CXC chemokine profiles

AB Chlamydia trachomatis is a major cause of sexually transmitted disease worldwide for which an effective vaccine is being actively pursued. Current vaccine efforts will be aided by elucidating the interaction between Chlamydia and dendritic cells (DCs). Protective immunity appears to develop slowly

following natural infection in humans, and early vaccine trials using inactivated C. trachomatis resulted in partial, short-lived protection with possible enhanced inflammatory pathol. during re-infection. Thus, immunity following natural infection with live chlamydia may differ fundamentally from immune responses induced by immunization with inactivated chlamydia. The authors explored this conjecture by studying the response of DCs exposed to either viable or inactivated [UV -irradiated] chlamydia elementary bodies (EBs; designated as Live-EB and UV-EB, resp.) using Affymetrix GeneChip microarrays. Thirty-one immunol. characterized genes were differentially expressed by DCs following exposure to Live-EB or UV-EB, including two glutamic acid-leucine-arginine cysteine-X-cysteine (ELR CXC) neutrophil chemoattractant chemokines, Cxcl1 (KC), and Cxcl2 (MIP-2). Up-regulation of these genes by Live-EB as compared to UV-EB was verified by quant. reverse transcription-polymerase chain reaction and increased chemokine secretion was confirmed by ELISA both in vitro and in vivo. Immunofluorescence and fluorescence-activated cell sorter anal. of chlamydia-infected lung tissue confirmed that Live-EB but not UV-EB induced significant DC and neutrophil infiltration during infection. These observations demonstrate that the development of an antichlamydial immune response is dramatically influenced by chlamydial viability. This has implications as to why early inactivated chlamydial vaccines were ineffective and suggests that new vaccine design efforts may benefit from in vitro DC screening for ELR chemokine expression profiles.

IT CXC chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(CXCL1; genetic profiling of dendritic cells exposed to live- or UV-irradiated Chlamydia muridarum reveals marked differences in CXC chemokine profiles)

IT CXC chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(CXCL5; genetic profiling of dendritic cells exposed to live- or UV-irradiated Chlamydia muridarum reveals marked differences in CXC chemokine profiles)

IT Cell infiltration
Chlamydia muridarum
Dendritic cell
Gene expression profiles, animal
Infection
Neutrophil
UV radiation
Vaccines
(genetic profiling of dendritic cells exposed to live- or UV-irradiated Chlamydia muridarum reveals marked differences in CXC chemokine profiles)

IT Interleukin 12
Interleukin 6
Macrophage inflammatory protein 2
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(genetic profiling of dendritic cells exposed to live- or UV-irradiated Chlamydia muridarum reveals marked differences in CXC chemokine profiles)

L60 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2007:1188715 HCAPLUS Full-text
DOCUMENT NUMBER: 148:98703
TITLE: Ovine Enzootic Abortion (OEA): a comparison of antibody responses in vaccinated and naturally-infected swiss sheep over a two year period
AUTHOR(S): Gerber, Andrea; Thoma, Ruedi; Vretou, Evangelia; Psarrou, Evgenia; Kaiser, Carmen; Doherr, Marcus G.;

Zimmermann, Dieter R.; Polkinghorne, Adam; Pospischil, Andreas; Borel, Nicole
CORPORATE SOURCE: Institute of Veterinary Pathology, Vetsuisse Faculty, University of Zurich, Switz.
SOURCE: BMC Veterinary Research (2007), 3, No pp. given
CODEN: BVRMA9; ISSN: 1746-6148
URL: http://www.biomedcentral.com/content/pdf/1746-6148-3-24.pdf
PUBLISHER: BioMed Central Ltd.
DOCUMENT TYPE: Journal; (online computer file)
LANGUAGE: English
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Background: Prevention and control of ovine enzootic abortion (OEA) can be achieved by application of a live vaccine. In this study, five sheep flocks with different vaccination and infection status were serol. tested using a competitive ELISA (cELISA) specific for Chlamydophila (Cp.) abortus over a two-year time period. Results: Sheep in Flock A with recent OEA history had high antibody values after vaccination similar to Flock C with natural Cp. abortus infections. In contrast, OEA serol. neg. sheep (Flock E) showed individual animal-specific immunoreactions after vaccination. Antibody levels of vaccinated ewes in Flock B ranged from neg. to pos. two and three years after vaccination, resp. Pos. antibody values in the neg. control Flock D (without OEA or vaccination) are probably due to asymptomatic intestinal infections with Cp. abortus. Excretion of the attenuated strain of Cp. abortus used in the live vaccine through the eye was not observed in vaccinated animals of Flock E. Conclusions: The findings of our study indicate that, using serol., no distinction can be made between vaccinated and naturally infected sheep. As a result, confirmation of a neg. OEA status in vaccinated animals by serol. cannot be determined

ST vaccine Chlamydophila antibody ovine enzootic abortion sheep ELISA infection

IT Abortion
Bacterial infection
Blood analysis
Chlamydophila abortus
Enzyme-linked immunosorbent assay
Ovis aries
Sheep
Vaccines
(comparison of antibody responses in vaccinated and non vaccinated Swiss sheep with ovine enzootic abortion)

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(comparison of antibody responses in vaccinated and non vaccinated Swiss sheep with ovine enzootic abortion)

IT Immunization
(vaccination; comparison of antibody responses in vaccinated and non vaccinated Swiss sheep with ovine enzootic abortion)

L60 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2006:1208467 HCAPLUS Full-text
DOCUMENT NUMBER: 145:487664
TITLE: Nanoemulsion vaccines
INVENTOR(S): Baker, James R.; Bielinska, Anna; Myc, Andrzej
PATENT ASSIGNEE(S): Regents of the University of Michigan, USA
SOURCE: U.S. Pat. Appl. Publ., 141pp., Cont.-in-part of U.S. Ser. No. 162,970.
CODEN: USXXCO
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060257426	A1	20061116	US 2006-403316	20060413
US 20030194412	A1	20031016	US 2002-162970	20020605
US 7314624	B2	20080101		
EP 1528937	A2	20050511	EP 2002-807914	20020605
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 20080181949	A1	20080731	US 2007-929295	20071030

PRIORITY APPLN. INFO.:
US 2001-296048P P 20010605
US 2002-162970 A2 20020605
WO 2002-US17765 W 20020605
US 2006-403316 A1 20060413

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The authors disclose methods and compns. for the use of nanoemulsions as mucosal adjuvants to induce immunity against environmental pathogens. Accordingly, in some embodiments, the present invention provides nanoemulsion vaccines comprising a nanoemulsion and an inactivated pathogen or protein derived from the pathogen. In one example, a nanoemulsion was formed using a heated oil phase comprising Triton X-100, soybean oil, and tri-Bu phosphate followed by injection of water in a ratio of 1 part water to four parts oil.

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgA; of enhanced immune response to nanoemulsion vaccines)

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG; of enhanced immune response to nanoemulsion vaccines)

IT Infection
(anthrax; nanoemulsion vaccines to enhance immune response in)

IT Human
(enhanced immune response to nanoemulsion vaccines)

IT Immunity
(mucosal; enhanced immune response to nanoemulsion vaccines)

IT Alphavirus
Animal virus
Arenavirus
Bacillus anthracis
Bacillus cereus
Bacillus circulans
Bacillus megaterium
Brucella
Burkholderia pseudomallei
Chlamydophila psittaci
Clostridium botulinum
Clostridium perfringens
Coxiella burnetii
Cryptosporidium parvum
Cytomegalovirus
Ebola virus
Escherichia coli
Eubacteria
Filovirus

Francisella tularensis
Fungi
Haemophilus influenzae
Hantavirus
Hepatitis A virus
Hepatitis B virus
Hepatitis C virus
Human herpesvirus 1
Human herpesvirus 2
Human immunodeficiency virus
Human papillomavirus
Influenza A virus
Junin virus
Marburg virus
Neisseria gonorrhoeae
Nipah virus
Parvovirus
Pathogen
Picornaviridae
Proteus mirabilis
Pseudomonas aeruginosa
Ricinus communis
Rickettsia prowazeki
SARS coronavirus
Salmonella
Salmonella typhimurium
Sendai virus
Shigella dysenteriae
Sindbis virus
Staphylococcus aureus
Streptococcus agalactiae
Streptococcus pneumoniae
Streptococcus pyogenes
Vaccinia virus
Vibrio cholerae
West Nile virus
Yersinia enterocolitica
Yersinia pestis
Yersinia pseudotuberculosis
(nanoemulsion vaccines for enhanced immune response to)

IT Antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nanoemulsion vaccines for enhanced immune response to)

IT AIDS (disease)
(nanoemulsion vaccines to enhance immune response in)

IT Biological warfare agents
(nanoemulsion vaccines to enhance immune response to)

IT Drug delivery systems
(nanoemulsions; enhanced immune response to nanoemulsion vaccines)

IT Vaccines
(synthetic; enhanced immune response to nanoemulsion vaccines)

IT Infection
(variola; nanoemulsion vaccines to enhance immune

response in)
IT Interferons
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(γ; of enhanced immune response to
nanoemulsion vaccines)

L60 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:119422 HCAPLUS Full-text
TITLE: Nod1-Mediated Endothelial Cell Activation by Chlamydophila pneumoniae
AUTHOR(S): Opitz, Bastian; Foerster, Stefanie; Hocke, Andreas C.; Maass, Matthias; Schmeck, Bernd; Hippenstiel, Stefan; Suttorp, Norbert; Kruell, Matthias
CORPORATE SOURCE: Department of Internal Medicine/Infectious Diseases, Charite University Medicine Berlin, Berlin, Germany
SOURCE: Circulation Research (2005), 96(3), 319-326
CODEN: CIRUAL; ISSN: 0009-7330
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
OS.CITING REF COUNT: 72 THERE ARE 72 CAPLUS RECORDS THAT CITE THIS RECORD (72 CITINGS)
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Nod1-Mediated Endothelial Cell Activation by Chlamydophila pneumoniae
AB Seroepidemiol. and animal studies, as well as demonstration of viable bacteria in atherosclerotic plaques, have linked Chlamydophila pneumoniae infection to development of chronic vascular lesions and coronary heart disease. Inflammation and immune responses are dependent on host recognition of invading pathogens. The recently identified cytosolic Nod proteins are candidates for intracellular recognition of bacteria, such as the obligate intracellular chlamydia. In the present study, mechanisms of endothelial cell activation by C. pneumoniae via Nod proteins were examined Viable, but not heat-inactivated, chlamydia activated human endothelial cells, suggesting that invasion of these cells is necessary for their profound activation. Endothelial cells express Nod1. Nod1 gene silencing by small interfering RNA reduced C pneumoniae-induced IL-8 release markedly. Moreover, in HEK293 cells, overexpressed Nod1 or Nod2 amplified the capacity of C pneumoniae to induce nuclear factor κB (NF-κB) activation. Interestingly, heat-inactivated bacteria were still able to induced a NF-κB reporter gene activity via Nod proteins when transfected intracellularly, but not when provided from the extracellular side. In contrast, TLR2 sensed extracellular heat-inactivated chlamydia. In conclusion, we demonstrated that C pneumoniae induced a Nod1-mediated and Nod2-mediated NF-κB activation in HEK293 cells. In endothelial cells, Nod1 played a dominant role in triggering a chlamydia-mediated inflammatory process.

L60 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:1022059 HCAPLUS Full-text
DOCUMENT NUMBER: 143:420715
TITLE: Chlamydophila pneumoniae induces expression of Toll-like receptor 4 and release of TNF-α and MIP-2 via an NF-κB pathway in rat type II pneumocytes
AUTHOR(S): Wissel, Heide; Schulz, Christian; Koehne, Petra; Richter, Ekkehard; Maass, Matthias; Ruediger, Mario
CORPORATE SOURCE: Clinic for Neonatology, Berlin, D-10098, Germany
SOURCE: Respiratory Research (2005), 6(1), No pp. given

CODEN: RREEBZ; ISSN: 1465-993X
URL: http://respiratory-research.com/content/pdf/1465-9921-6-51.pdf
PUBLISHER: BioMed Central Ltd.
DOCUMENT TYPE: Journal; (online computer file)
LANGUAGE: English
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Chlamydophila pneumoniae induces expression of Toll-like receptor 4 and release of TNF-α and MIP-2 via an NF-κB pathway in rat type II pneumocytes

AB The role of alveolar type II cells in the regulation of innate and adaptive immunity is unclear. Toll-like receptors (TLRs) have been implicated in host defense. The purpose here was to investigate whether C. pneumoniae (1) alters the expression of TLR2 and/or TLR4 in type II cells in a (2) Rho-GTPase- and (3) NF-κB-dependent pathway, subsequently (4) leading to the production of (4) pro-inflammatory TNF-α and MIP-2. Isolated rat type II pneumocytes were incubated with C. pneumoniae after pre-treatment with calcium chelator BAPTA-AM, inhibitors of NF-κB (parthenolide, SN50) or with a specific inhibitor of the Rho-GTPase (mevastatin). TLR2 and TLR4 mRNA expression was analyzed by PCR. Activation of TLR4, RacI, RhoA protein and NF-κB was determined by Western blotting and confocal laser scan microscopy (CLSM) and TNF-α and MIP-2 release by ELISA. Type II cells constitutively expressed TLR4 and TLR2 mRNA. A prominent induction of TLR4 but not TLR2 mRNA was detected after 2 h of incubation with C. pneumoniae. The TLR4 protein expression reached a peak at 30 min, began to decrease within 1-2 h and peaked again at 3 h. Incubation of cells with heat-inactivated bacteria (56° for 30 min) reduced the TLR4 expression. Treatment of bacteria with polymyxin B (2 μg/mL) did not alter TLR4 expression. C. pneumoniae-induced NF-κB activity was blocked by TLR4 blocking antibodies. TLR4 mRNA and protein expression was inhibited in the presence of BAPTA-AM, SN50, or parthenolide. TNF-α and MIP-2 release was increased in type II cells in response to C. pneumoniae, whereas BAPTA-AM, SN50, or parthenolide decreased the C. pneumoniae-induced TNF-α and MIP-2 release. Mevastatin inhibited C. pneumoniae-mediated RacI, RhoA, and TLR4 expression. The TLR4 protein expression in rat type II cells is likely to be mediated by a heat-sensitive C. pneumoniae protein that induces a fast Ca2+-mediated NF-κB activity, necessary for maintenance of TLR4 expression and TNF-α and MIP-2 release through possibly Rac and Rho protein-dependent mechanism. Thus, type II pneumocytes play an important role in the innate pulmonary immune system and in inflammatory response mechanism of the alveolus.

ST Chlamydophila Toll receptor TLR4 cytokine NFkappaB type II pneumocyte; tumor necrosis factor Chlamydophila receptor TLR4 NFkappaB pneumocyte; MIP2 chemokine Chlamydophila receptor TLR4 NFkappaB type II pneumocyte

IT Chlamydophila pneumoniae
(Chlamydophila pneumoniae induces expression of Toll-like receptor 4 and release of tumor necrosis factor and MIP-2 via NF-κB signaling in rat type II pneumocytes)

IT Macrophage inflammatory protein 2
Tumor necrosis factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Chlamydophila pneumoniae induces expression of Toll-like receptor 4 and release of tumor necrosis factor and MIP-2 via NF-κB signaling in rat type II pneumocytes)

IT Transcription factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(NF-κB (nuclear factor of κ light chain gene enhancer in B-cells); Chlamydophila pneumoniae induces expression of Toll-like receptor 4 and release of tumor necrosis factor and MIP-2 via

NF-κB signaling in rat type II pneumocytes)
IT Receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(TLR-4 (Toll-like receptor-4); Chlamydophila pneumoniae induces expression of Toll-like receptor 4 and release of tumor necrosis factor and MIP-2 via NF-κB signaling in rat type II pneumocytes)
IT Inflammation
Lung, disease
(pneumonitis; Chlamydophila pneumoniae induces expression of Toll-like receptor 4 and release of tumor necrosis factor and MIP-2 via NF-κB signaling in rat type II pneumocytes)
IT Lung
(type II cell; Chlamydophila pneumoniae induces expression of Toll-like receptor 4 and release of tumor necrosis factor and MIP-2 via NF-κB signaling in rat type II pneumocytes)
IT 7440-70-2, Calcium, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Chlamydophila pneumoniae induces expression of Toll-like receptor 4 and release of tumor necrosis factor and MIP-2 via calcium-mediated NF-κB signaling in rat type II pneumocytes)

L60 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2004:372844 HCAPLUS Full-text
DOCUMENT NUMBER: 140:368742
TITLE: Use of lipid conjugates in the treatment of disease
INVENTOR(S): Yedgar, Saul; Krimsky, Miron; Beck, Grietje; Yard, Benito Antonio; Van Der Woude, Fokko Johannes
PATENT ASSIGNEE(S): Yissum Research Development Company of the Hebrew University of Jerusalem, Israel
SOURCE: U.S. Pat. Appl. Publ., 103 pp., Cont.-in-part of U.S. Ser. No. 756,765.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 16
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040087492	A1	20040506	US 2003-627981	20030728
US 7101859	B2	20060905		
US 20020049183	A1	20020425	US 2001-756765	20010110
US 7034006	B2	20060425		
US 20050143288	A1	20050630	US 2004-989606	20041117
US 7811999	B2	20101012		
US 20050245464	A1	20051103	US 2004-989607	20041117
US 7772196	B2	20100810		
US 20060079485	A1	20060413	US 2005-220965	20050908
US 7504384	B2	20090317		
US 20060189568	A1	20060824	US 2005-220964	20050908
US 20060189569	A1	20060824	US 2005-220966	20050908
US 20060189570	A1	20060824	US 2005-220967	20050908
US 20060189571	A1	20060824	US 2005-220968	20050908
US 20060293276	A1	20061228	US 2005-285375	20051123
WO 2007029258	A2	20070315	WO 2006-IL1048	20060907
WO 2007029258	A3	20070614		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,

GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,
MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,
RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

US 20100022473	A1	20100128	US 2009-406130		20090318
PRIORITY APPLN. INFO.:			US 2000-174907P	P	20000110
			US 2001-756765	A2	20010110
			US 2000-174905P	P	20000110
			US 2003-627981	A2	20030728
			US 2004-919523	A2	20040817
			US 2004-952496	A2	20040929
			US 2004-989606	A2	20041117
			US 2004-989607	A2	20041117
			US 2005-220964	A	20050908
			US 2005-220965	A1	20050908
			US 2005-220967	A	20050908

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB The invention provides novel methods for treating disease based upon the medicinal use of lipids and phospholipids covalently bound to physiol. acceptable monomers or polymers. Phosphatidylethanolamine moieties conjugated to physiol. acceptable monomers and polymers (PE conjugates) manifest an unexpectedly wide range of pharmacol. effects, including stabilizing cell membranes; limiting oxidative damage to cell and blood components; limiting cell proliferation, cell extravasation and (tumor) cell migratory behavior; suppressing immune responses; and attenuating physiol. reactions to stress, as expressed in elevated chemokine levels. The surprisingly manifold pharmacol. properties of the phospholipid-conjugates allow for the invention, disclosed herein, of novel methods for the treatment of a diverse range of disease states, including obstructive respiratory disease, including asthma; colitis and Crohn's disease; central nervous system insult, including blood brain barrier compromise, ischemic stroke, and multiple sclerosis; contact dermatitis; psoriasis; cardiovascular disease, including ischemic conditions and prophylaxis for invasive vascular procedures; cellular proliferative disorders, including anti-tumor vasculogenesis, invasiveness, and metastases; anti-oxidant therapy; hemolytic syndromes; sepsis; acute respiratory distress syndrome; tissue transplant rejection syndromes; autoimmune disease; viral infection; and hypersensitivity conjunctivitis. The therapeutic methods of the invention include administration of phosphatidylethanolamine bound to CM-cellulose, heparin, hyaluronic acid, polyethylene glycol, and Polygeline (haemaccel). Disclosed herein are also new compds. comprised of phospholipid moieties bound to low mol. weight monomers and dimers, including mono- and disaccharides, carboxylated disaccharides, mono- and dicarboxylic acids, salicylates, bile acids, and fatty acids.

IT Angiogenesis inhibitors
Anti-AIDS agents
Anti-inflammatory agents
Antiasthmatics
Antibacterial agents
Antioxidants
Antitumor agents
Antiviral agents

Asthma
Atherosclerosis
Autoimmune disease
Cardiovascular agents
Chlamydophila psittaci
Cytotoxic agents
Hemolysis
Human
Immunosuppressants
Ischemia
Multiple sclerosis
Nervous system agents
Psoriasis
Sepsis
Transplant and Transplantation
(lipid conjugates for disease treatment)

L60 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2003:448929 HCAPLUS Full-text
DOCUMENT NUMBER: 139:259619
TITLE: Relationship between the immune response and protection conferred by new designed inactivated vaccines against ovine enzootic abortion in a mouse model
AUTHOR(S): Caro, Maria R.; Ortega, Nieves; Buendia, Antonio J.; Gallego, Maria C.; del Rio, Laura; Cuello, Francisco; Salinas, Jesus
CORPORATE SOURCE: Facultad de Veterinaria, Departamento de Sanidad Animal, Universidad de Murcia, Murcia, 30100, Spain
SOURCE: Vaccine (2003), 21(23), 3126-3136
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Relationship between the immune response and protection conferred by new designed inactivated vaccines against ovine enzootic abortion in a mouse model

AB Chlamydophila abortus is a gram-neg. obligate intracellular bacterium and the etiol. agent of ovine enzootic abortion (OEA), an economically important disease in many countries. Inactivated vaccines have been reported to induce immunity in ewes and they have been used for many years. However, some outbreaks have been reported in correctly vaccinated flocks, so it is clear that new vaccines are necessary to address adequate protection and to avoid the shedding of the microorganism. This idea lead the authors to design inactivated vaccines, in a previously established mouse model, evaluating different inactivation procedures and new adjuvants. To assess the protection conferred, the results were analyzed on the basis of clin. signs and the isolation of C. abortus from spleen. These findings were correlated with the immune response induced by the vaccines, as determined by the production of C. abortus-specific IFN-γ and IL-4 from splenocyte cultures and the detection of IgG isotypes in serum. BEI was the best C. abortus-inactivation procedure. The inactivated vaccines adjuvanted with QS-21 (QS) or Montanide 773 (M7) induced the best protection both against homologous and heterologous challenge, with an adequate (Th1-like) immune response. Finally, these selected vaccines were evaluated in a pregnant mouse model, in which they were seen to confer good protection and to avoid the C. abortus persistence in

uterus after delivery. With these results, this mouse model could be considered as an adequate tool for selecting and optimizing effective vaccines against OEA.

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG2a; immune response to inactivated Chlamydophila abortus vaccine against ovine enzootic abortion)

IT Immunostimulants
(adjuvants, Ribi; immune response to inactivated Chlamydophila abortus vaccine against ovine enzootic abortion)

IT T cell (lymphocyte)
(helper cell/inducer, TH1; immune response to inactivated Chlamydophila abortus vaccine against ovine enzootic abortion)

IT Chlamydophila abortus
Vaccines
(immune response to inactivated Chlamydophila abortus vaccine against ovine enzootic abortion)

IT Interleukin 4
Paraffin oils
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(immune response to inactivated Chlamydophila abortus vaccine against ovine enzootic abortion)

IT Abortion
(ovine enzootic; immune response to inactivated Chlamydophila abortus vaccine against ovine enzootic abortion)

IT Interferons
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(γ; immune response to inactivated Chlamydophila abortus vaccine against ovine enzootic abortion)

IT 151-56-4, Ethylenimine, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(binary; for inactivation of Chlamydophila abortus)

IT 21645-51-2, Rehydragel, biological studies 66594-14-7, Quil A 141256-04-4, QS-21 158516-73-5, Montanide ISA 206 557103-15-8, Montanide ISA 773
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(immune response to inactivated Chlamydophila abortus vaccine against ovine enzootic abortion)

L60 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2003:876315 HCAPLUS Full-text
DOCUMENT NUMBER: 139:363550
TITLE: More than just innate immunity: Comparative analysis of Chlamydophila pneumoniae and Chlamydia trachomatis effects on host-cell gene regulation
AUTHOR(S): Hess, Simone; Peters, Jan; Bartling, Gerda; Rheinheimer, Claudia; Hegde, Priti; Magid-slav, Michal; Tal-singer, Ruth; Klos, Andreas
CORPORATE SOURCE: Department of Medical Microbiology, Medical School Hannover, Hannover, D-30623, Germany

SOURCE: Cellular Microbiology (2003), 5(11), 785-795
CODEN: CEMIF5; ISSN: 1462-5814
PUBLISHER: Blackwell Publishing Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OS.CITING REF COUNT: 30 THERE ARE 30 CAPLUS RECORDS THAT CITE THIS RECORD (30 CITINGS)
REFERENCE COUNT: 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI More than just innate immunity: Comparative analysis of Chlamydophila pneumoniae and Chlamydia trachomatis effects on host-cell gene regulation

AB Chlamydophila pneumoniae and Chlamydia trachomatis cause infections of the respiratory or urogenital tract. In addition, both species have been associated with atherosclerosis or reactive arthritis resp. For these intracellular pathogens the interaction with their host-cells is of particular importance. To get insight into this relationship, we conducted a comparative anal. of the host-cell gene regulation of human epithelial cells during infection with Chlamydia. In a screening of HeLa cells by Affymetrix-microchips, numerous regulated host-genes were identified. A detailed expression profile was obtained for 14 genes by real-time RT-PCR - comparing C. pneumoniae, C. trachomatis and intracellular S. typhimurium. The transcriptional responses induced by C. pneumoniae were similar (but usually smaller) compared to C. trachomatis, some were absent. UV-inactivated bacteria induced no differential gene expression suggesting that pathomechanisms other than those associated with innate immunity play here an important role. The expression pattern induced by Salmonella differed substantially. These genus- or group-specific transcriptional response patterns elicited by viable intracellular pathogens may considerably contribute to the different pathologies encountered in the clinic.

ST Chlamydia Chlamydophila infection DNA microarray gene expression

IT Apoptosis
Atherosclerosis
Chlamydia trachomatis
Chlamydophila pneumoniae
DNA microarray technology
Gene expression profiles, animal
Human
(host gene regulation in immune response to Chlamydophila pneumoniae and Chlamydia trachomatis infections)

IT Cell adhesion molecules
Chemokines
Cytokines
Gene, animal
Transcription factors
RL: ANT (Analyte); ANST (Analytical study)
(host gene regulation in immune response to Chlamydophila pneumoniae and Chlamydia trachomatis infections)

IT Respiratory system, disease
Urogenital system, disease
(infection; host gene regulation in immune response to Chlamydophila pneumoniae and Chlamydia trachomatis infections)

IT Infection
(urogenital; host gene regulation in immune response to Chlamydophila pneumoniae and Chlamydia trachomatis infections)

IT 189460-40-0, Connective tissue growth factors
RL: ANT (Analyte); ANST (Analytical study)
(host gene regulation in immune response to Chlamydophila pneumoniae and Chlamydia trachomatis infections)

L60 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2002:615357 HCAPLUS Full-text
DOCUMENT NUMBER: 137:184446
TITLE: Attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases
INVENTOR(S): Kernodle, Douglas S.; Bochan, Markian R.
PATENT ASSIGNEE(S): Vanderbilt University, USA; The United States Government as Represented by the Department of Veteran's Affairs
SOURCE: PCT Int. Appl., 164 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062298	A2	20020815	WO 2002-US3451	20020207
WO 2002062298	A3	20030220		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2437596	A1	20020815	CA 2002-2437596	20020207
AU 2002240269	A1	20020819	AU 2002-240269	20020207
AU 2002240269	B2	20070621		
EP 1361794	A2	20031119	EP 2002-706163	20020207
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005504502	T	20050217	JP 2002-562306	20020207
JP 4197614	B2	20081217		
ZA 2003006058	A	20040602	ZA 2003-6058	20030806
IN 2003DN01267	A	20050527	IN 2003-DN1267	20030811
US 20040109875	A1	20040610	US 2004-467644	20040120
IN 2010DN02057	A	20100820	IN 2010-DN2057	20100323

PRIORITY APPLN. INFO.:

US 2001-267328P	P	20010207
US 2001-322989P	P	20010918
WO 2002-US3451	W	20020207
IN 2003-DN1267	A3	20030811

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

TI Attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases

AB Whole-cell vaccines and methods for their use in producing protective immune responses in vertebrate hosts subsequently exposed to pathogenic bacteria. The present invention involves a method of enhancing antigen presentation by intracellular bacteria in a manner that improves vaccine efficacy. After identifying an enzyme that has an anti-apoptotic effect upon host cells infected by an intracellular microbe, the activity of the enzyme is reduced, thereby modifying the microbe so that it increases immunogenicity. Also, the present invention provides a method of incrementally modifying enzyme activity

to produce incrementally attenuated mutants of the microbe from which an effective vaccine candidate can be selected.

ST antiapoptotic enzyme attenuated bacteria vaccine infectious disease

IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); REM (Removal or disposal); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(anti-apoptotic; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Actinobacillus pleuropneumoniae
Bacillus anthracis
Brucella
Brucella melitensis
Campylobacter
Chlamydia
Chlamydia pneumoniae
Chlamydia trachomatis
Chlamydophila psittaci
Coxiella burnetii
Ehrlichia
Ehrlichia ruminantium
Escherichia coli
Eubacteria
Haemophilus
Haemophilus ducreyi
Haemophilus influenzae
Human
Immunodeficiency
Immunostimulation
Infection
Legionella
Legionella pneumophila
Listeria ivanovii
Listeria monocytogenes
Mammalia
Mannheimia haemolytica
Mutagenesis
Mycobacterium BCG
Mycobacterium africanum
Mycobacterium avium
Mycobacterium avium paratuberculosis
Mycobacterium bovis
Mycobacterium intracellulare
Mycobacterium kansasii
Mycobacterium marinum
Mycobacterium tuberculosis
Mycobacterium ulcerans
Neisseria gonorrhoeae
Neisseria meningitidis
Nocardia
Nocardia asteroides
Pasteurella
Pasteurella multocida
Pseudomonas
Pseudomonas aeruginosa
Respiratory system
Rickettsia
Salmonella
Salmonella typhi
Shigella

Staphylococcus aureus
Staphylococcus epidermidis
Streptococcus agalactiae
Streptococcus pyogenes
Tuberculosis
Vaccines
Vibrio cholerae
Yersinia
Yersinia enterocolitica
Yersinia pestis
(attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Leader peptides
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Thioredoxins
RL: BSU (Biological study, unclassified); REM (Removal or disposal); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Antigens
Antisense oligonucleotides
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Infection
Pathogen
(bacterial; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Metabolism
(basic cell; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Amino acids, biological studies
Lipids, biological studies
Nucleic acids
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(biosynthesis enzyme; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Drug delivery systems
(carriers; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Immunity
(cell-mediated; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT T cell (lymphocyte)
(cytotoxic, CD8+; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Antigen presentation

(enhancement; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Proteins
RL: BSU (Biological study, unclassified); REM (Removal or disposal); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(glutaredoxin-like; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Scavengers
(iron-scavenging mol.; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Mutagenesis
(site-directed, deletion; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Mutagenesis
(site-directed, insertion; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Mutagenesis
(site-directed, substitution; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Proteins
RL: BSU (Biological study, unclassified); REM (Removal or disposal); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(thioredoxin reductase-like; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT Proteins
RL: BSU (Biological study, unclassified); REM (Removal or disposal); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(thioredoxin-like; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT 9023-70-5, Glutamine synthetase 9054-89-1, Superoxide dismutase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT 9001-05-2, Catalase 9001-48-3, Glutathione reductase 9001-62-1, Lipase 9001-92-7, Protease 9002-13-5, Urease 9013-79-0, Esterase 9013-93-8, Phospholipase 9035-82-9, Dehydrogenase 9037-29-0, Oxygenase 9055-15-6, Oxidoreductase 9074-14-0, Thioredoxin reductase 101637-43-8, Sulfur reductase 110910-59-3, ATP-dependent protease Clp 354575-51-2, Protein disulfide oxidoreductase
RL: BSU (Biological study, unclassified); REM (Removal or disposal); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT 120-73-0D, 1H-Purine, derivs.
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(purines, biosynthesis enzyme; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

IT 448984-30-3 448984-31-4 448984-32-5 448984-33-6
RL: PRP (Properties)

(unclaimed nucleotide sequence; attenuated bacteria having reduced anti-apoptotic enzyme activity to enhance immunogenicity and for use as vaccines against infectious diseases)

L60 ANSWER 23 OF 25 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2006104351 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 16490708
TITLE: Vaccination against chlamydial infections of man and animals.
AUTHOR: Longbottom D; Livingstone M
CORPORATE SOURCE: Moredun Research Institute, Pentlands Science Park, International Research Center, Bush Loan, Penicuik, Midlothian, Edinburgh EH26 0PZ, UK..
david.longbottom@mri.sari.ac.uk
SOURCE: Veterinary journal (London, England : 1997), (2006 Mar) Vol. 171, No. 2, pp. 263-75. Electronic Publication: 2004-11-11. Ref: 148
Journal code: 9706281. ISSN: 1090-0233. L-ISSN: 1090-0233.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200604
ENTRY DATE: Entered STN: 22 Feb 2006
Last Updated on STN: 7 Apr 2006
Entered Medline: 6 Apr 2006
REFERENCE COUNT: 148 There are 148 cited references for this document.
AB Vaccination is the best approach for controlling the spread of chlamydial infections, in animal and human populations. This review summarises the progress that has been made towards the development of effective vaccines over the last 50 years, and discusses current vaccine strategies. The ultimate goal of vaccine research is to develop efficacious vaccines that induce sterile, long-lasting, heterotypic protective immune responses. To date, the greatest success has been in developing whole organism based killed or live attenuated vaccines against the animal pathogens Chlamydophila abortus and Chlamydophila felis. However, similar approaches have proved unsuccessful in combating human chlamydial infections. More recently, emphasis has been placed on the development of subunit or multicomponent vaccines, as cheaper, safer and more stable alternatives. Central to this is a need to identify candidate vaccine antigens, which is being aided by the sequencing of representative genomes of all of the chlamydial species. In addition, it is necessary to identify suitable adjuvants and develop methods for antigen delivery that are capable of eliciting mucosal and systemic cellular and humoral immune responses. DNA vaccination in particular holds much promise, particularly in terms of safety and stability, although it has so far been less effective in humans and large animals than in mice. Thus, much research still needs to be done to improve the delivery of plasmid DNA, as well as the expression and presentation of antigens to ensure that effective immune responses are induced.

L60 ANSWER 24 OF 25 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2003482615 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 14560444
TITLE: [Humoral immune response in breeding sows after vaccination with a herd-specific Chlamydophila abortus vaccine].
Humorale Immunantwort von Zuchtsauen nach Impfung mit einer

stallspezifischen Chlamydophila abortus-Vakzine.
AUTHOR: Knitz J C; Hoelzle L E; Affolter P; Hamburger A; Zimmermann K; Heinritzi K; Wittenbrink M M
CORPORATE SOURCE: Institut fur Veterinarbakteriologie, Universitat Zurich, Schweiz.
SOURCE: DTW. Deutsche tierarztliche Wochenschrift, (2003 Sep) Vol. 110, No. 9, pp. 369-74.
Journal code: 7706565. ISSN: 0341-6593. L-ISSN: 0341-6593.
PUB. COUNTRY: Germany: Germany, Federal Republic of
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200401
ENTRY DATE: Entered STN: 17 Oct 2003
Last Updated on STN: 16 Jan 2004
Entered Medline: 15 Jan 2004

TI [Humoral immune response in breeding sows after vaccination with a herd-specific Chlamydophila abortus vaccine].
Humorale Immunantwort von Zuchtsauen nach Impfung mit einer stallspezifischen Chlamydophila abortus-Vakzine.

AB A chlamydial vaccine efficacy trial with assessment of the clinical acceptability and serum antibody responses was performed in breeding sows. A BGM cell culture derived vaccine containing 10(8)/ml formalin-inactivated purified elementary bodies (Eb.) in sterile 0.15 M saline was prepared from Chlamydophila (Ch.) abortus strain OCHL03/99 which has been isolated in the herd from a sample of vaginal discharge. Vaccination was performed as a randomised trial with parallel treatment of a vaccinated group (25 sows) and non-vaccinated control group (20 sows). Sows received two 2.0-ml doses of vaccine intramuscularly at a three week interval. Control sows were dosed with sterile 0.15 M saline, accordingly. Serological response to vaccination was measured by ELISA with a total of 204 blood serum samples (114 from the vaccine group; 90 from the control group) using crude chlamydial LPS as the antigen. Compared to the control group, vaccinated sows showed a marked primary and secondary IgG serum antibody response following the two vaccinations. Antibody levels peaked between week 7 and 14 after priming vaccination, declined incrementally until week 27 but remained significantly higher than the corresponding sham-immune control levels and the prevaccination values of the vaccine group ($p < 0.05$). Western blot analysis of solubilized whole Eb. of Ch. abortus, Ch. pecorum, and Chlamydia (C.) suis with pre- and postvaccination sera confirmed that vaccination induced an antibody response preferentially against a range of 13 chlamydial antigens including the 40 kDa MOMP of Ch. abortus. Clinical side effects consisting of a transient mild local inflammatory reaction at the site of injection were observed in approx. 30% of vaccinated sows. These results provide the basis for further clinical evaluation of the Ch. abortus vaccine to protect sows from chlamydia-induced reproductive disorders.

L60 ANSWER 25 OF 25 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN
ACCESSION NUMBER: 2010-G04725 [201038] WPIX
TITLE: New isolated porcine circovirus strain type 2 useful for treating porcine circovirus associated diseases e.g. postweaning multisystemic wasting syndrome, porcine dermatitis and nephropathy syndrome, porcine respiratory disease complex
DERWENT CLASS: B04; C06; D16
INVENTOR: CSAGOLA A; MISAK F; PENZES Z; TUBOLY T
PATENT ASSIGNEE: (CEVA-N) CEVA SANTE ANIMALE
COUNTRY COUNT: 124

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2010061000	A1	20100603	(201038)*	EN	40[7]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2010061000	A1	WO 2009-EP66007	20091127

PRIORITY APPLN. INFO: US 2008-118505P 20081128

DETD DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) new isolated porcine circovirus strain type 2 comprising a nucleotide sequence containing 1778 base pairs as given in the specification (SEQ ID NO: 1), or a nucleotide sequence having a homology of at least 99% to nucleotide sequence as given in (SEQ ID NO: 1), a nucleotide sequence which is capable of hybridizing to nucleotide sequence as given in (SEQ ID NO: 1), or to a sequence corresponding to it within the degeneration of genetic code under conditions of high stringency;

(2) new porcine circovirus strain type 2 having a large intergenic region sequence comprising a nucleotide sequence containing 53 base pairs as given in the specification (SEQ ID NO: 2), a nucleotide sequence having a homology of at least 80%, 85%, 90%, 92%, 95%, 97%, or 99% to nucleotide sequence as given in (SEQ ID NO: 2), a nucleotide sequence which is capable of hybridizing to nucleotide sequence as given in (SEQ ID NO: 2), or to a sequence corresponding to it within the degeneration of genetic code under conditions of high stringency;

(3) new mutated porcine circovirus type 2 subtype B1 comprising 11 base pair repeat sequence duplication from nucleotides at positions 41-52 of genome of the porcine circovirus type 2 subtype B1, where the repeat sequence comprises a nucleotide sequence cggcagcacct (SEQ ID NO: 3), a nucleotide sequence having a homology of at least 70%, 75%, 80%, 85%, 90%, 92%, 95%, 97%, or 99% to nucleotide sequence as given in (SEQ ID NO: 3), a nucleotide sequence which is capable of hybridizing to the nucleotide sequence as given in (SEQ ID NO: 3), or to a sequence corresponding it to within the degeneration of genetic code under conditions of high stringency;

(4) a host cell for production of circovirus strain;

(5) producing (P1) a porcine circovirus type 2 virus involving seeding host cells with a seed of culture of circovirus, growing cells under conditions in a manner allowing production of virus, and harvesting porcine circovirus type 2 from the cells;

(6) propagating (P2) a porcine circovirus type 2 virus involving inserting into a large intergenic region of the genome of circovirus a nucleotide sequence as given in (SEQ ID NO: 3), growing a cell line under conditions so as to obtain a titre of up to 106 TCID50 viral particles per ml;

(7) propagating porcine circovirus 1 or 2, subtype A or B involving seeding host cells, growing cells under conditions in a manner allowing production of circoviruses and harvesting porcine circoviruses from the cells;

(8) new nucleic acid molecule comprising a nucleotide sequence having a homology of at least 99% to nucleotide sequence as given in (SEQ ID NO: 1), or a homology of at least 80% to nucleotide sequence as given in (SEQ ID NO: 2), a nucleotide sequence which is capable of hybridizing to the nucleotide sequence as given in (SEQ ID NOs: 1 or 2), or to a sequence corresponding it to within the degeneration of genetic code under

conditions of high stringency;

(9) new nucleic acid molecule comprising genome of a porcine circovirus type 2 subtype B comprising 11 base pair repeat sequence duplication from nucleotide at positions 41 of the nucleotide sequence of the genome of porcine circovirus type 2 subtype B1, where the repeat sequence comprises a nucleotide sequence as given in (SEQ ID NO: 3), a nucleotide sequence having a homology of at least 70%, 75%, 80%, 85%, 90%, 92%, 95%, 97%, or 99% to the nucleotide sequence as given in (SEQ ID NO: 3), a nucleotide sequence which is capable of hybridizing to the nucleotide sequence as given in (SEQ ID NO: 3), or to a sequence corresponding to it within the degeneration of genetic code under conditions of high stringency;

(10) new nucleic acid molecule (A1) for expression of at least one circovirus polypeptide comprising a nucleotide sequence as given in (SEQ ID NO: 1), (SEQ ID NO: 2), or their portion encoding the polypeptide;

(11) new nucleic acid molecule (A2) for expression of a mutated ORF1 comprising a nucleotide sequence as given in (SEQ ID NO: 2);

(12) a protein encoded by the nucleic acid molecule;

(13) a vector, virus, plasmid or host cell comprising the nucleic acid molecule;

(14) a circovirus vaccine composition for eliciting immunological response against porcine circovirus comprising the porcine circovirus type 2, their subunit, the recombinant protein, recombinant vector, virus, or plasmid, or the propagating cell line of host cell, and a veterinary acceptable vehicle or excipient;

(15) a container comprising the composition;

(16) a kit comprising the container and instruction manual including information for administration of composition into pigs for treating and/or preventing porcine circovirus associated diseases;

(17) diagnostic kit or reagent comprising DNA probes or primers corresponding to a nucleotide sequence or their fragment as given in (SEQ ID NOs: 1-3), a nucleotide sequence having a homology of at least 99% to nucleotide sequence as given in (SEQ ID NO: 1), a nucleotide sequence having a homology of at least 80% to nucleotide sequence as given in (SEQ ID NOs: 2 or 3), or a nucleotide sequence which is capable of hybridizing to the nucleotide sequence as given in (SEQ ID NOs: 1-3);

(18) a diagnostic kit or reagent comprising polyclonal or monoclonal antibodies antibody which is capable of binding to porcine circovirus or their sub-units; and

(19) diagnosing presence of circovirus in pigs involving collecting a tissue or fluid sample, contacting sample with diagnosing reagent, and detecting presence of porcine circoviruses in the sample, by hybridization, Polymerase chain reaction (PCR), immunofluorescence, Western blotting, enzyme linked immuno-assays (ELISA) or immunochromatography.

USE

USE - For preparation of composition for treating porcine circovirus type 2 associated diseases selected from postweaning multisystemic wasting syndrome, porcine dermatitis and nephropathy syndrome, porcine respiratory disease complex, reproductive disorders, granulomatous enteris, exsudative epidermitis, necrotizing lymphadenitis, and congenital tremors; for inducing host immune response against porcine circovirus type 2 (claimed).

TECH

BIOTECHNOLOGY - Preferred Composition: The porcine circovirus type 2B composition obtained by the method (P1) or (P2) comprises up to 106 TCID50 viralparticles per ml, or 105 to 108 TCID50 viral particles per ml. The circovirus vaccine composition is formulated from the composition of porcine circovirus type 2B. The circovirus vaccine composition further comprises an adjuvant, such as a light paraffin oil, carbomer, aluminum hydroxide, saponin, avridine (N,N-dioctadecyl-N',N'-bis(2-hydroxyethy1)-

propanediamine), N-(1-(2,3-ditetradecyloxy)propyl)-N,N-dimethyl-N-hydroxyethylammonium bromide (DMRIE) or dodecyl acrylate (DDA), a carrier, and/or a cytokine; an additional immunogenic active component effective against another disease-causing organism in swine; PCV2 subtype A virus; and at least one immunogen from at least one additional pig pathogen selected from 81 pathogens as given in the specification e.g. adenovirus; alphavirus such as eastern equine encephalomyelitis viruses; Balantidium coli; Brachyspira spp., preferably Brachyspira hyodyentheriae, Brachyspira pilosicoli, Brachyspira innocens; classical swine fever virus, african swine fever virus; Chlamydophila sp.; Clostridium spp.; Digestive and respiratory Coronavirus; Eimeria spp; Escherichia coli; Japanese Encephalitis virus; Leptospira spp.; Mycobacterium spp. preferably, Mycobacterium avium, Mycobacterium intracellulare and Mycobacterium bovis; Parvovirus; Porcine cytomegolovirus; or Porcine parovirus. Preferred Components: The porcine circovirus strain is inactivated. The host cell is derived from swine testicle cells. The host cell is deposited at the CNCM and having under accession number CNCM 1-4093 or CNCM 1-4092. The nucleic acid (A1) or (A2) is functionally linked to a promoter sequence, such as a homologous or a heterologous promoter, and eventually a cis-acting transcription regulatory sequence.

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=> d his ful

     (FILE 'HOME' ENTERED AT 17:10:58 ON 13 DEC 2010)

     FILE 'CAPLUS' ENTERED AT 17:12:45 ON 13 DEC 2010
                E US2006-563199/APPS
L1            2 SEA SPE=ON  ABB=ON  PLU=ON  (US2006-563199/AP OR US2006-563199/
                PRN)
                D SCA
L2            1 SEA SPE=ON  ABB=ON  PLU=ON  L1 AND VACCIN?
                SEL RN

     FILE 'REGISTRY' ENTERED AT 17:14:06 ON 13 DEC 2010
L3           10 SEA SPE=ON  ABB=ON  PLU=ON  (827073-23-4/BI OR 827073-24-5/BI
                OR 827073-25-6/BI OR 827073-26-7/BI OR 827073-27-8/BI OR
                827073-28-9/BI OR 827073-29-0/BI OR 827073-30-3/BI OR 827073-86
                -9/BI OR 827073-87-0/BI)

     FILE 'CAPLUS' ENTERED AT 17:14:14 ON 13 DEC 2010
L4            1 SEA SPE=ON  ABB=ON  PLU=ON  L1 AND L3
                D IALL HITSTR

     FILE 'HCAPLUS' ENTERED AT 17:22:30 ON 13 DEC 2010
                E MYCOPLASMA CYNOS/CT
                E E3+ALL
L5           10 SEA SPE=ON  ABB=ON  PLU=ON  MYCOPLASMA CYNOS+PFT,NT/CT OR (M
                OR M. OR MYCOPLAS?)(2A)CYNOS
L6            3 SEA SPE=ON  ABB=ON  PLU=ON  L5 AND (INACTIV? OR ATTENUAT? OR
                ?VACCIN?)
                D SCA
L7           10 SEA SPE=ON  ABB=ON  PLU=ON  L5 OR L6
                E STREPTOCOCCUS EQUI ZOOEPIDEMICUS/CT
                E E3+ALL
L8          372 SEA SPE=ON  ABB=ON  PLU=ON  STREPTOCOCCUS EQUI ZOOEPIDEMICUS+PF
                T,NT/CT
L9          468 SEA SPE=ON  ABB=ON  PLU=ON  L8 OR STREP?(3A)ZOOEPID?
                E CHLAMYDOPHILA/CT
                E E3+ALL
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L10          863 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDOPHILA+PFT,NT/CT
                 E CHLAMYDIA+ALL/CT
L11         6964 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDIA+PFT,NT/CT
L12        19864 SEA SPE=ON  ABB=ON  PLU=ON  L10 OR L11 OR CHLAMYD?
L13            3 SEA SPE=ON  ABB=ON  PLU=ON  (L7 OR CYNOS) AND (L12 OR L9)
                 D SCA
L14          924 SEA SPE=ON  ABB=ON  PLU=ON  L12 AND ?VACCIN? AND ?IMMUN?
L15          126 SEA SPE=ON  ABB=ON  PLU=ON  L14 AND (INACTIV? OR ATTENUAT?)
L16           24 SEA SPE=ON  ABB=ON  PLU=ON  L15 AND (L7 OR ?CYNOS? OR MYCOPLAS?
                 )
L17           24 SEA SPE=ON  ABB=ON  PLU=ON  L15 AND (L7 OR CYNOS OR MYCOPLAS?)

                 D KWIC
L18            1 SEA SPE=ON  ABB=ON  PLU=ON  L15 AND (L7 OR ?CYNOS?)
                 D SCA
L19            4 SEA SPE=ON  ABB=ON  PLU=ON  L13 OR L18 OR L6
                 E CHLAMYDIA MURIDARUM+ALL/CT
L20          221 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDIA MURIDARUM+PFT,NT/CT
L21           50 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDIA PECORUM+PFT,NT/CT
                 E CHLAMYDIA PECORUM+ALL/CT
L22           50 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDIA PECORUM+PFT,NT/CT
L23           55 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDIA SUIS+PFT,NT/CT
L24         3870 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDIA TRACHOMATIS+PFT,NT/CT
L25         1930 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDIA PNEUMONIAE+PFT,NT/CT
L26         5936 SEA SPE=ON  ABB=ON  PLU=ON  (L22 OR L23 OR L24 OR L25) OR
                 (CHLAMYD? AND (PECORUM? OR SUIS OR TRACHOMATIS OR PNEUNONIAE))
L27         6678 SEA SPE=ON  ABB=ON  PLU=ON  (L22 OR L23 OR L24 OR L25) OR
                 (CHLAMYD? AND (PECORUM? OR SUIS OR TRACHOMATIS OR PNEUMONIAE))
L28         6678 SEA SPE=ON  ABB=ON  PLU=ON  L27 OR L26
L29          273 SEA SPE=ON  ABB=ON  PLU=ON  L28 AND (ATTENUAT? OR INACTIV?)
L30          139 SEA SPE=ON  ABB=ON  PLU=ON  L29 AND ?IMMUN?
L31           58 SEA SPE=ON  ABB=ON  PLU=ON  L29 AND ?IMMUN?(S)?RESPON?
                 D KWIC
L32           51 SEA SPE=ON  ABB=ON  PLU=ON  L29 AND ?IMMUN?(3A)?RESPON?
L33          133 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDOPHILA ABORTUS+PFT,NT/CT
L34           68 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDOPHILA FELIS+PFT,NT/CT
L35          221 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDIA MURIDARUM+PFT,NT/CT
                 E CHLAMYDOPHILA PECORUM+ALL/CT
L36           42 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDOPHILA PECORUM+PFT,NT/CT
L37           50 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDIA PECORUM+PFT,NT/CT
L38           92 SEA SPE=ON  ABB=ON  PLU=ON  L36 OR L37
L39         1201 SEA SPE=ON  ABB=ON  PLU=ON  (L33 OR L34 OR L35 OR L36 OR L37)
                 OR CHLAMYD?(3A)(ABORTUS OR FELIS OR MURIDARUM OR PECORUM) OR
                 L10 OR CHLAMYDOPHILA
L40           18 SEA SPE=ON  ABB=ON  PLU=ON  L39 AND (ATTENUAT? OR INACTIV?)
                 AND IMMUNE RESPONS?
L41           82 SEA SPE=ON  ABB=ON  PLU=ON  L39 AND (ATTENUAT? OR INACTIV?)
L42           55 SEA SPE=ON  ABB=ON  PLU=ON  L41 AND ?IMMUN?
L43           22 SEA SPE=ON  ABB=ON  PLU=ON  L41 AND ?IMMUN?(S)?RESPON?

     FILE 'MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 17:42:19 ON 13 DEC 2010
L44        53245 SEA SPE=ON  ABB=ON  PLU=ON  ?CHLAMYD?(S)(PECORUM OR SUIS OR
                 TRACHOMATIS OR PNEUMONIA?)
L45          928 SEA SPE=ON  ABB=ON  PLU=ON  L44 AND (ATTENUAT? OR INACTIV?)
L46          557 SEA SPE=ON  ABB=ON  PLU=ON  L45 AND ?IMMUN?
L47          238 SEA SPE=ON  ABB=ON  PLU=ON  L45 AND ?IMMUN?(S) ?RESPON?
L48           18 SEA SPE=ON  ABB=ON  PLU=ON  ?CHLAMYD?(2A)(PECORUM OR SUIS OR
                 TRACHOMATIS OR PNEUMONIA?)(S)(ATTENUA? OR INACTIV?)(S)
                 ?IMMUN?(S) RESPON?
L49           65 SEA SPE=ON  ABB=ON  PLU=ON  ?CHLAMYD?(2A)(PECORUM OR SUIS OR
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                TRACHOMATIS OR PNEUMONIA?)(S)(ATTENUA? OR INACTIV?) AND
                ?IMMUN?(S) RESPON?
                D TRI
L50          12 SEA SPE=ON  ABB=ON  PLU=ON  (CHLAMYDOPHIL? OR ?CHLAMYD?(2A)(ABO
                RTUS OR FELIS OR MURIDARUM OR PECORUM))(S)(ATTENUA? OR
                INACTIV?) AND ?IMMUN?(S) RESPON?

     FILE 'MEDLINE' ENTERED AT 17:47:03 ON 13 DEC 2010
                E CHLAMYDIA MURDARUM/CT
                E CHLAMYDIA MURIDARUM/CT
                E E3+ALL
                E CHLAMYDIA PECORUM+ALL/CT
                E E4+ALL
                E E2+ALL
                E CHLAMYDOPHIL/CT
                E CHLAMYDOPHILA ABORTUS/CT
L51           0 SEA SPE=ON  ABB=ON  PLU=ON  CHALMYDOPHILA ABORTUS
L52         151 SEA SPE=ON  ABB=ON  PLU=ON  CHLAMYDOPHILA ABORTUS
                D TRI
                D
                D 50

     FILE 'MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 17:50:39 ON 13 DEC 2010
L53          75 SEA SPE=ON  ABB=ON  PLU=ON  L49 OR L50
L54           1 SEA SPE=ON  ABB=ON  PLU=ON  L53 AND CYNOS
                D KWIC
L55        1637 SEA SPE=ON  ABB=ON  PLU=ON  ZOOEPID?
L56           1 SEA SPE=ON  ABB=ON  PLU=ON  L55 AND CYNOS
L57           1 SEA SPE=ON  ABB=ON  PLU=ON  L54 OR L56

     FILE 'HCAPLUS' ENTERED AT 17:52:14 ON 13 DEC 2010
                D QUE L19

     FILE 'MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 17:52:26 ON 13 DEC 2010
                D QUE L57

     FILE 'HCAPLUS, WPIX' ENTERED AT 17:52:31 ON 13 DEC 2010
L58           4 DUP REM L19 L57 (1 DUPLICATE REMOVED)
                     ANSWERS '1-4' FROM FILE HCAPLUS
                D L58 IBIB ABS HIT TOT

     FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 17:53:02 ON 13 DEC 2010
                D QUE L19

     FILE 'HCAPLUS' ENTERED AT 17:53:18 ON 13 DEC 2010
                D QUE L19

     FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 17:53:23 ON 13 DEC 2010
                D QUE L49

     FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 17:53:29 ON 13
     DEC 2010
L59          41 DUP REM L19 L49 (28 DUPLICATES REMOVED)
                      ANSWERS '1-4' FROM FILE HCAPLUS
                      ANSWERS '5-17' FROM FILE MEDLINE
                      ANSWER '18' FROM FILE BIOSIS
                      ANSWERS '19-41' FROM FILE WPIX
                D L59 IBIB HIT TOT

     FILE 'HCAPLUS' ENTERED AT 17:54:14 ON 13 DEC 2010
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            D QUE L43

     FILE 'MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 17:54:27 ON 13 DEC 2010
            D QUE L50

     FILE 'HCAPLUS, MEDLINE, EMBASE, BIOSIS, WPIX' ENTERED AT 17:54:33 ON 13
     DEC 2010
L60          25 DUP REM L43 L50 (9 DUPLICATES REMOVED)
                   ANSWERS '1-22' FROM FILE HCAPLUS
                   ANSWERS '23-24' FROM FILE MEDLINE
                   ANSWER '25' FROM FILE WPIX
            D L60 IBIB HIT TOT


     FILE HOME

     FILE CAPLUS

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     FILE COVERS 1907 - 13 Dec 2010  VOL 153 ISS 25
     FILE LAST UPDATED: 12 Dec 2010  (20101212/ED)
     REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Aug 2010
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     CAS Information Use Policies apply and are available at:

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     Property values tagged with IC are from the ZIC/VINITI data file
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     STRUCTURE FILE UPDATES:   12 DEC 2010  HIGHEST RN 1256335-36-0
     DICTIONARY FILE UPDATES:  12 DEC 2010  HIGHEST RN 1256335-36-0

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http://www.cas.org/support/stngen/stndoc/properties.html

FILE HCAPLUS

FILE COVERS 1907 - 13 Dec 2010 VOL 153 ISS 25
FILE LAST UPDATED: 12 Dec 2010 (20101212/ED)
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FILE MEDLINE
FILE LAST UPDATED: 9 Dec 2010 (20101209/UP). FILE COVERS 1946 TO DATE.

MEDLINE and LMEDLINE have been updated with the 2010 Medical Subject Headings (MeSH) vocabulary and tree numbers from the U.S. National Libra of Medicine (NLM). Additional information is available at

http://www.nlm.nih.gov/pubs/techbull/nd09/nd09_medline_data_changes_2010.

The Medline file has been reloaded effective January 24, 2010. See HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

See HELP RANGE before carrying out any RANGE search.

FILE EMBASE
FILE COVERAGE: EMBASE-originated material 1947 to 13 Dec 2010 (20101213/E
Unique MEDLINE content 1948 to present

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

For further assistance, please contact your local helpdesk.

FILE BIOSIS
FILE COVERS 1926 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1926 TO DATE.

RECORDS LAST ADDED: 8 December 2010 (20101208/ED)

BIOSIS has been augmented with 1.8 million archival records from 1926
through 1968. These records have been re-indexed to match current
BIOSIS indexing.

FILE WPIX
FILE LAST UPDATED: 8 DEC 2010 <20101208/UP>
MOST RECENT UPDATE: 201079 <201079/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE
>>> Now containing more than 1.6 million chemical structures in DCR <<<

>>> IPC, ECLA, US National Classifications and Japanese F-Terms
and FI-Terms have been updated with reclassifications to
end of July 2010.
No update date (UP) has been created for the reclassified
documents, but they can be identified by
specific update codes (see HELP CLA for details) <<<

>>> FOR THE LATEST DERWENT WORLD PATENTS INDEX (DWPI)
STN USER DOCUMENTATION, PLEASE VISIT:
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>>> HELP for European Patent Classifications see HELP ECLA, HELP ICO <<<

>>> For changes in DWPI see HELP CHANGE - last updated April 6, 2010 <<<